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CIA/OER/S-07577-75 INPUT-OUTPUT ANALYSIS ON MAJOR ECONOMIES
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MEMORANDUM FOR: Mr. Thomas D. Willett
Deputy Assistant Secretary
for Research
Department of the Treasury

SUBJECT : Input-Output Analysis on
Major Economies

Per our recent discussion I am forwarding the attached research material examining possible recovery scenarios for the major industrial countries. The analysis does not represent a forecast of the recovery path, but rather is an attempt to use input-output for the major countries to access changes in output requirements under various patterns of recovery. We are now in the process of updating our estimates of available capacity. If there are any questions on this subject please call me at IDS- [REDACTED]

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Chief, [REDACTED] Pacific Branch
Industrial Nations Division
Office of Economic Research

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Attachment:
As stated



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A PRELIMINARY LOOK AT SIMULTANEOUS RECOVERY
AND INDUSTRIAL CAPACITY:

AN INPUT-OUTPUT ANALYSIS

A PRELIMINARY LOOK AT SIMULTANEOUS RECOVERY
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A PRELIMINARY LOOK AT RECOVERY AND INDUSTRIAL CAPACITY:

AN INPUT-OUTPUT ANALYSIS

INTRODUCTION

1. This report is a preliminary attempt to identify industrial supply bottlenecks that might occur in the event of a synchronized economic upturn among major industrial countries. The analysis makes use of input-output tables for each of the major countries in order to assess output requirements under various recovery scenarios. It should be noted that the analysis is not aimed at forecasting the timing of recovery. Rather, it deals with the possible rate of expansion once recovery begins, what the output requirements would be and how much industrial capacity would be available to support expansion.

THE PROBLEM

2. A simultaneous economic expansion involving the major industrial countries poses a variety of potential problems. Foremost is the risk of hitting production bottlenecks before full employment is attained. A related problem is the danger of sparking another round of inflation similar to the price spiral associated with the 1972-1973 synchronized upturn.

Although initiated by raw material shortages, price inflation during that business cycle was later exacerbated by capacity constraints in industry, particularly heavy industry.

3. Several factors will determine the extent and nature of capacity constraints. A key element is the amount of spare capacity now available and likely to be added before recovery begins. At present, idle plant capacity is considerable, reflecting the current low level of economic activity. Little new capacity is being added because of the sharp decline in plant and equipment investment over the past 24 months. As a result, plant expansion in the major economies this year will probably be substantially less than normal.

4. Spare capacity is not evenly distributed among industries. Consumer-related industries have the greatest surplus capacity reflecting the steep drop in demand for these items. The build-up of idle plant in basic industries -- steel and chemicals, for example, -- has been more moderate, although still substantial. In the case of raw materials the amount of surplus production capacity also differs from commodity to commodity. Surplus copper mining capacity, for example, is quite large while tin production is only slightly below potential.

5. How fast excess productive capacity is exhausted depends in large measure on the pace of recovery. The nature of the upturn also plays a role, since an expansion based on rising personal or government consumption requires a different output mix than one based on rising investment. A 1% increase in investment, for example, has a substantially larger impact on

demand for basic materials such as steel, than does a comparable rise in personal or government consumption. Because the amount of spare capacity differs among industries, increased demand for particular products could result in selective production bottlenecks even though overall industry remains below capacity.

METHODOLOGY

6. Several methodologies were employed to determine
 - a. the amount of capacity likely to be available in each industry and each of the major countries during the course of economic expansion; and
 - b. output requirements in each industry and each country during the course of an upturn.

The analysis concentrates primarily on a dozen major industries and includes the six major economies -- the United States, Japan, West Germany, Italy and the United Kingdom.

7. To determine the amount of capacity available involves relatively straight forward techniques. Spare capacity currently available in each industry was measured by comparing present production with the most recent peak level of production. Adjustments were made for capacity additions through the end of 1974 -- estimated at roughly the long-term expansion rate for industry at large. Capacity additions for this year and next year were extrapolated at roughly half the long-term rate to obtain a 1976 year-end estimate of available capacity in each industry. To determine available capacity by each industry for the major countries as a group, national totals were aggregated using value added weights.

8. To determine output requirements, use was made of input-output tables for the six economies. The rows in the inverted input-output table corresponding to the industrial sectors for each economy were increased by percent changes for each final demand component. Increases associated with each demand component were then aggregated to determine overall output changes caused by changes in total domestic demand. Output requirements for the six countries as a group were aggregated using value added weights for each industry.

9. Numerous alternative recovery paths for each of the major countries are possible. Three illustrative possibilities were examined.

- o Case I -- the recovery pattern identical to that following the previous steepest post-war recession.
- o Case II -- the recovery pattern identical to that followed during the 1972-73 upturn.
- o Case III -- a recovery pattern taking into account some of the unique aspects of current recession.

It should be noted that it is still too early to forecast with any precision the timing of recovery or what the recovery path will actually look like once it materializes. The cases under review are only illustrative of the possibilities.

10. The following table shows changes in domestic demand for each country and case. The external sector -- both exports and imports -- has been excluded in order to isolate the impact of changes in domestic demand on output requirements.

CHANGE IN TOTAL DOMESTIC DEMAND

	Percent Change Annual Rate			
	CASE I	CASE II	CASE III	CASE AVERAGE
JAPAN	22	14	13	16
UNITED STATES	10	6	10*	9
WEST GERMANY	8	4	8	7
UNITED KINGDOM	10	6	6	7
ITALY	3	10	6	6
FRANCE	18	8	7	11
WEIGHTED AVERAGE	12	7	9	9

* Assumes case 1 recovery pattern

RESULTS

11. The analysis shows that available capacity in several sectors would be exhausted fairly quickly in the event of a sustained simultaneous expansion. Initial constraints would emerge roughly 18 months following the start of an upturn. If recovery begins in early 1976, for example, several industries would be at or near full capacity utilization by mid-1977. The following table summarizes the results of the analysis, including the amount of capacity available by industry and the number of months until full capacity utilization is reached.

TABLE 1
SUMMARY TABLE

<u>INDUSTRY</u>	<u>AVAILABLE CAPACITY*</u> (PERCENT)	<u>MONTHS TO FULL CAPACITY**</u>
IRON AND STEEL	17	16
CHEMICALS	14	16
NON-FERROUS METALS	25	17
ELECTRICAL MACHINERY	19	17
FABRICATED METALS	19	18
PAPER PRODUCTS	19	19
UTILITIES	14	18
CEMENT	21	20
TRANSPORTATION EQUIPMENT	28	22
LUMBER	29	28
TEXTILES	26	33

*WEIGHTED AVERAGE OF MAJOR INDUSTRIAL COUNTRIES; 1976 YEAR-END ESTIMATE

**WEIGHTED AVERAGE OF MAJOR INDUSTRIAL COUNTRIES AND SIMPLE AVERAGE OF THREE ILLUSTRATIVE CASES

SECTORAL DETAIL

12. Tables 2A through 2D show the results, including country detail, for several key industries. Table 2E shows the results for the remaining major industries covered by the analysis.

TABLE 2A
SECTOR DETAIL

IRON AND STEEL

	AVAILABLE CAPACITY (PERCENT)	MONTHS TO FULL CAPACITY			
		CASE I	CASE II	CASE III	CASE AVERAGE
JAPAN	21	10	14	18	14
UNITED STATES	17	11	28	11	17
UNITED KINGDOM	17	16	45	24	28
WEST GERMANY	15	14	38	15	22
ITALY	18	N.A.	21	25	23
FRANCE	9	7	12	11	10
WEIGHTED AVE.	17	11	22	14	16

- o Capacity is hit first under almost all recovery scenarios.
- o Shortages are possible within a year and a half after recovery begins.
- o The United States, Japan, and France face shortages the soonest.

TABLE 2B
SECTOR DETAIL

CHEMICALS

	AVAILABLE CAPACITY (PERCENT)	MONTHS TO FULL CAPACITY			
		CASE I	CASE II	CASE III	CASE AVERAGE
JAPAN	19	8	12	14	11
UNITED STATES	9	9	18	9	12
UNITED KINGDOM	6	7	9	9	8
WEST GERMANY	22	20	53	26	33
ITALY	14	49	19	27	32
FRANCE	16	10	22	18	17
WEIGHTED AVE.	14	12	20	15	16

- o Capacity is reached within 18 months of recovery.
- o The United States, Japan and United Kingdom reach full capacity utilization first.
- o Only West Germany and Italy have ample capacity for a multi-year expansion.

TABLE 2C
SECTOR DETAILNON-FERROUS METALS

	AVAILABLE CAPACITY (PERCENT)	MONTHS TO FULL CAPACITY			
		CASE I	CASE II	CASE III	CASE AVERAGE
JAPAN	50	14	19	26	20
UNITED STATES	22	13	32	13	19
UNITED KINGDOM	15	8	77	13	33
WEST GERMANY	20	10	26	11	16
ITALY	19	14	10	9	11
FRANCE	8	4	8	7	6
WEIGHTED AVE.	25	12	23	15	17

- o Large excess capacity is used up fairly rapidly.
- o Japan, the United States, and United Kingdom have the most capacity to support output growth.
- o France faces particularly severe shortages.

TABLE 2D
SECTOR DETAIL

FABRICATED METALS

	AVAILABLE CAPACITY (PERCENT)	MONTHS TO FULL CAPACITY			
		CASE I	CASE II	CASE III	CASE AVERAGE
JAPAN	40	14	20	27	20
UNITED STATES	14	13	26	13	17
UNITED KINGDOM	17	16	24	23	21
WEST GERMANY	17	18	47	19	28
ITALY	N.A.	2	10	8	7
FRANCE	10	6	12	11	10
WEIGHTED AVE.	19	13	24	17	18

- o Constraints are generally reached within two years of recovery
- o Italy and France face possible shortages sooner than the average
- o West Germany, the United Kingdom and Japan hit full capacity utilization later in the expansion.

TABLE 2E
SECTOR DETAIL

INDUSTRIAL MACHINERY

	AVAILABLE CAPACITY (PERCENT)	MONTHS TO FULL CAPACITY			
		CASE I	CASE II	CASE III	CASE AVERAGE
JAPAN	22	9	13	17	13
UNITED STATES	13	8	18	8	11
UNITED KINGDOM	9	6	9	10	8
WEST GERMANY	13	13	42	14	23
ITALY	20	N.A.	22	26	62
FRANCE	10	8	11	10	10
WEIGHTED AVE.	14	9	16	11	12

PAPER PRODUCTS

	AVAILABLE CAPACITY (PERCENT)	MONTHS TO FULL CAPACITY			
		CASE I	CASE II	CASE III	CASE AVERAGE
JAPAN	25	12	17	20	16
UNITED STATES	14	14	27	14	18
UNITED KINGDOM	13	10	11	12	11
WEST GERMANY	27	30	54	27	37
ITALY	15	36	18	23	26
FRANCE	8	3	11	9	8
WEIGHTED AVE.	19	13	26	19	19

TABLE 2E
SECTOR DETAIL
CEMENT

	AVAILABLE CAPACITY (PERCENT)	MONTHS TO FULL CAPACITY			
		CASE I	CASE II	CASE III	CASE AVERAGE
JAPAN	34	16	24	28	23
UNITED STATES	19	18	34	18	23
UNITED KINGDOM	17	12	26	18	19
WEST GERMANY	22	11	58	21	30
ITALY	12	64	12	14	30
FRANCE	13	9	16	14	13
WEIGHTED AVE.	21	16	25	20	20

LUMBER

	AVAILABLE CAPACITY (PERCENT)	MONTHS TO FULL CAPACITY			
		CASE I	CASE II	CASE III	CASE AVERAGE
JAPAN	35	17	26	30	24
UNITED STATES	25	26	45	26	32
UNITED KINGDOM	35	17	28	25	23
WEST GERMANY	15	16	37	16	23
ITALY	34	132	43	34	70
FRANCE	N.A.	19	11	12	14
WEIGHTED AVE.	29	23	33	27	28

TABLE 2E
SECTOR DETAIL
TEXTILES

	AVAILABLE CAPACITY (PERCENT)	MONTHS TO FULL CAPACITY			
		CASE I	CASE II	CASE III	CASE AVERAGE
JAPAN	51	30	43	48	40
UNITED STATES	17	21	34	21	25
UNITED KINGDOM	23	34	34	40	36
WEST GERMANY	39	48	71	42	54
ITALY	19	81	32	52	55
FRANCE	15	14	34	33	27
WEIGHTED AVE.	26	27	40	32	33

TRANSPORTATION EQUIPMENT

	AVAILABLE CAPACITY (PERCENT)	MONTHS TO FULL CAPACITY			
		CASE I	CASE II	CASE III	CASE AVERAGE
JAPAN	21	13	13	23	16
UNITED STATES	28	24	14	24	21
UNITED KINGDOM	22	23	11	31	22
WEST GERMANY	40	64	3	67	45
ITALY	26	N.A.	7	92	45
FRANCE	23	15	7	35	19
WEIGHTED AVE.	28	25	11	29	22

SECTOR DETAIL

UTILITIES

	AVAILABLE CAPACITY (PERCENT)	MONTHS TO FULL CAPACITY			
		CASE I	CASE II	CASE III	CASE AVERAGE
JAPAN	22	14	20	21	18
UNITED STATES	15	21	32	21	25
UNITED KINGDOM	6	7	12	10	10
WEST GERMANY	8	11	20	10	14
ITALY	14	49	17	25	30
FRANCE	8	5	12	11	9
WEIGHTED AVE.	14	15	22	18	18

ELECTRICAL MACHINERY

	AVAILABLE CAPACITY (PERCENT)	MONTHS TO FULL CAPACITY			
		CASE I	CASE II	CASE III	CASE AVERAGE
JAPAN	23	8	11	16	12
UNITED STATES	17	15	32	15	21
UNITED KINGDOM	18	13	20	19	17
WEST GERMANY	22	24	65	26	38
ITALY	13	89	14	17	40
FRANCE	8	5	10	19	11
WEIGHTED AVE.	19	13	21	16	17

TESTING THE RESULTS

13. The output requirements resulting from the input-output analysis closely corresponds to actual increases in industrial production. The output results for Case II were compared with actual changes in industrial production during the relevant 1972-1973 period. In most instances, the calculated changes about matched actual changes for the group as a whole. Where differences did occur, calculated changes were generally below actual changes. The difference between actual and calculated changes, in large part, were due to the fact that export demand outside the group was excluded from the analysis.

TAB A

APPENDIX A

JAPAN

CHANGE IN SECTORAL OUTPUT REQUIRED TO MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT CASE I CASE II CASE III		
		I	II	III
IRON-STEEL	21	26	19	14
NON-FERROUS	50	42	31	22
FABRICATED METALS	40	34	24	18
CEMENT	34	25	17	15
CHEMICALS	19	28	20	16
TEXTILES	51	20	14	13
LEATHER	22	22	15	14
LUMBER PRODUCTS	35	24	17	14
PAPER PRODUCTS	25	25	18	15
INDUSTRIAL MACHINERY	22	30	21	16
ELECTRICAL MACHINERY	23	34	25	18
TRANSPORTATION EQUIPMENT	21	19	13	11
UTILITIES	22	19	14	13
CONSTRUCTION	N.A.	20	13	12
CHANGE IN DOMESTIC DEMAND		22	14	13

APPENDIX A

JAPAN

CHANGE IN SECTORAL OUTPUT REQUIRED TO
MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT ANNUAL RATE		
		CASE I	CASE II	CASE III
IRON-STEEL	21	26	19	14
NON-FERROUS	50	42	31	22
FABRICATED METALS	40	34	24	18
CEMENT	34	25	17	15
CHEMICALS	19	28	20	16
TEXTILES	51	20	14	13
LEATHER	22	22	15	14
LUMBER PRODUCTS	35	24	17	14
PAPER PRODUCTS	25	25	18	15
INDUSTRIAL MACHINERY	22	30	21	16
ELECTRICAL MACHINERY	23	34	25	18
TRANSPORTATION EQUIPMENT	21	19	13	11
UTILITIES	22	19	14	13
CONSTRUCTION	N.A.	20	13	12
CHANGE IN DOMESTIC DEMAND		22	14	13

APPENDIX A
 UNITED STATES
 CHANGE IN SECTORAL OUTPUT REQUIRED TO
 MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT ANNUAL RATE	
		CASE	CASE
IRON-STEEL	17	18	7
NON-FERROUS	22	20	8
FABRICATED METALS	14	14	7
CEMENT	19	13	7
CHEMICALS	9	12	6
TEXTILES	17	10	6
LEATHER	48	8	6
LUMBER PRODUCTS	25	12	7
PAPER PRODUCTS	14	12	6
INDUSTRIAL MACHINERY	13	18	9
ELECTRICAL MACHINERY	17	14	7
TRANSPORTATION EQUIPMENT	28	13	6
UTILITIES	15	9	6
CONSTRUCTION	N.A.	10	7
CHANGE IN DOMESTIC DEMAND		10	6

APPENDIX A

UNITED KINGDOM

CHANGE IN SECTORAL OUTPUT REQUIRED TO MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT		
		ANNUAL RATE		
		CASE I	CASE II	CASE III
IRON-STEEL	17	13	5	9
NON-FERROUS	15	22	2	14
FABRICATED METALS	17	13	9	9
CEMENT	17	17	8	11
CHEMICALS	6	10	8	8
TEXTILES	23	8	8	7
LEATHER	24	9	12	8
LUMBER PRODUCTS	35	24	15	17
PAPER PRODUCTS	13	16	14	12
INDUSTRIAL MACHINERY	9	17	1	10
ELECTRICAL MACHINERY	18	17	11	12
TRANSPORTATION EQUIPMENT	22	12	11	9
UTILITIES	6	9	6	7
CONSTRUCTION	N.A.	21	5	13
CHANGE IN DOMESTIC DEMAND		10	6	6

APPENDIX A

WEST GERMANYCHANGE IN SECTORAL OUTPUT REQUIRED TO
MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT ANNUAL RATE		
		CASE	CASE	CASE
IRON-STEEL	15	13	5	12
NON-FERROUS	20	23	9	22
FABRICATED METALS	17	11	4	10
CEMENT	22	13	5	12
CHEMICALS	22	9	5	10
TEXTILES	39	10	7	11
LEATHER	44	8	6	10
LUMBER PRODUCTS	15	11	5	11
PAPER PRODUCTS	27	11	6	12
INDUSTRIAL MACHINERY	13	13	4	11
ELECTRICAL MACHINERY	22	11	4	10
TRANSPORTATION EQUIPMENT	40	8	3	7
UTILITIES	8	9	5	10
CONSTRUCTION	N.A.	13	2	10
CHANGE IN DOMESTIC DEMAND		8	4	8

APPENDIX A

ITALYCHANGE IN SECTORAL OUTPUT REQUIRED TO
MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT ANNUAL RATE		
		CASE I	CASE II	CASE III
IRON-STEEL	18	2	10	9
NON-FERROUS	19	17	24	25
FABRICATED METALS	N.A.	2	10	8
CEMENT	12	2	11	10
CHEMICALS	14	4	9	6
TEXTILES	19	3	7	4
LEATHER	20	2	6	4
LUMBER PRODUCTS	34	3	12	10
PAPER PRODUCTS	15	5	12	8
INDUSTRIAL MACHINERY	20	2	10	9
ELECTRICAL MACHINERY	13	2	11	9
TRANSPORTATION EQUIPMENT	26	-1	7	4
UTILITIES	14	4	10	7
CONSTRUCTION	N.A.	1	11	10
CHANGE IN DOMESTIC DEMAND		3	10	6

APPENDIX A

FRANCE

CHANGE IN SECTORAL OUTPUT REQUIRED TO
MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT ANNUAL RATE		
		CASE I	CASE II	CASE III
IRON-STEEL	9	16	9	11
NON-FERROUS	8	21	12	14
FABRICATED METALS	10	18	10	11
CEMENT	13	16	10	11
CHEMICALS	16	19	9	10
TEXTILES	15	13	5	5
LEATHER	14	13	7	8
LUMBER PRODUCTS	N.A.	19	11	12
PAPER PRODUCTS	8	29	9	11
INDUSTRIAL MACHINERY	10	16	11	12
ELECTRICAL MACHINERY	8	19	9	11
TRANSPORTATION EQUIPMENT	23	19	7	8
UTILITIES	8	19	8	9
CONSTRUCTION	N.A.	15	9	10
CHANGE IN DOMESTIC DEMAND		18	8	7

TAB B

APPENDIX B
 IRON AND STEEL
 CHANGE IN SECTORAL OUTPUT REQUIRED TO
 MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT		
		CASE I	ANNUAL RATE CASE II	CASE III
JAPAN	21	26	19	14
UNITED STATES	17	18	7	18
UNITED KINGDOM	17	13	5	9
WEST GERMANY	15	13	5	12
ITALY	18	2	10	9
FRANCE	9	16	9	11
WEIGHTED AVE.	17	18	10	15

APPENDIX B

NON-FERROUS METALS

CHANGE IN SECTORAL OUTPUT REQUIRED TO MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT ANNUAL RATE		
		CASE I	CASE II	CASE III
JAPAN	50	42	31	22
UNITED STATES	22	20	8	20
UNITED KINGDOM	15	22	2	14
WEST GERMANY	20	23	9	22
ITALY	19	17	24	25
FRANCE	8	21	12	14
WEIGHTED AVE.	25	24	13	20

APPENDIX B
FABRICATED METALS
CHANGE IN SECTORAL OUTPUT REQUIRED TO
MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT		
		CASE I	ANNUAL RATE CASE II	BASE CASE III
JAPAN	40	34	24	18
UNITED STATES	14	14	7	14
UNITED KINGDOM	17	13	9	9
WEST GERMANY	17	11	4	10
ITALY	N.A.	2	10	8
FRANCE	10	18	10	11
WEIGHTED AVE.	19	17	10	14

APPENDIX B

CHEMICALS

CHANGE IN SECTORAL OUTPUT REQUIRED TO MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT		
		CASE	ANNUAL RATE CASE	RATE CASE
JAPAN	19	28	20	16
UNITED STATES	9	12	6	12
UNITED KINGDOM	6	10	8	8
WEST GERMANY	22	9	5	10
ITALY	14	4	9	6
FRANCE	16	19	9	10
WEIGHTED AVE.	14	14	8	11

APPENDIX B

CEMENT

CHANGE IN SECTORAL OUTPUT REQUIRED TO MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT		
		CASE I	ANNUAL RATE CASE II	CASE III
JAPAN	34	25	17	15
UNITED STATES	19	13	7	13
UNITED KINGDOM	17	17	8	11
WEST GERMANY	22	13	5	12
ITALY	12	2	11	10
FRANCE	13	16	10	11
WEIGHTED AVE.	21	15	10	13

APPENDIX B

PAPER PRODUCTS

CHANGE IN SECTORAL OUTPUT REQUIRED TO MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT ANNUAL RATE		
		CASE	CASE	CASE
JAPAN	25	25	18	15
UNITED STATES	14	12	6	12
UNITED KINGDOM	13	16	14	12
WEST GERMANY	27	11	6	12
ITALY	15	5	12	8
FRANCE	8	29	9	11
WEIGHTED AVE.	19	18	10	13

APPENDIX B
 INDUSTRIAL MACHINERY
 CHANGE IN SECTORAL OUTPUT REQUIRED TO
 MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT		
		CASE I	ANNUAL RATE CASE II	CASE III
JAPAN	22	30	21	16
UNITED STATES	13	18	9	18
UNITED KINGDOM	9	17	1	10
WEST GERMANY	13	13	4	11
ITALY	20	2	10	9
FRANCE	10	16	11	12
WEIGHTED AVE.	14	19	11	15

APPENDIX B
 TEXTILE
 CHANGE IN SECTORAL OUTPUT REQUIRED TO
 MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT ANNUAL RATE		
		CASE I	CASE II	CASE III
JAPAN	51	20	14	13
UNITED STATES	17	10	6	10
UNITED KINGDOM	23	8	8	7
WEST GERMANY	39	10	7	11
ITALY	19	3	7	4
FRANCE	15	13	5	5
WEIGHTED AVE.	26	12	8	10

APPENDIX B

LUMBER

CHANGE IN SECTORAL OUTPUT REQUIRED TO MEET DOMESTIC DEMAND.

	AVAILABLE CAPACITY	CHANGE IN OUTPUT ANNUAL RATE		
		CASE I	CASE II	CASE III
JAPAN	35	24	17	14
UNITED STATES	26	12	7	12
UNITED KINGDOM	35	24	15	17
WEST GERMANY	15	11	5	11
ITALY	34	3	12	10
FRANCE	N.A.	19	11	12
WEIGHTED AVE.	29	15	10	13

APPENDIX B
ELECTRICAL MACHINERY
CHANGE IN SECTORAL OUTPUT REQUIRED TO
MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT ANNUAL RATE		
		CASE I	CASE II	CASE III
JAPAN	23	34	25	18
UNITED STATES	17	14	7	14
UNITED KINGDOM	18	17	11	12
WEST GERMANY	22	11	4	10
ITALY	13	2	11	9
FRANCE	8	19	9	11
WEIGHTED AVE.	19	18	11	14

APPENDIX B

TRANSPORTATION EQUIPMENT CHANGE IN SECTORAL OUTPUT REQUIRED TO MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT		
		CASE I	ANNUAL RATE CASE II	CASE III
JAPAN	21	19	13	11
UNITED STATES	28	13	6	13
UNITED KINGDOM	22	12	11	9
WEST GERMANY	40	8	3	7
ITALY	26	-1	7	4
FRANCE	23	19	7	8
WEIGHTED AVE.	28	13	7	12

APPENDIX B

UTILITIES

CHANGE IN SECTORAL OUTPUT REQUIRED TO
MEET DOMESTIC DEMAND

	AVAILABLE CAPACITY	CHANGE IN OUTPUT ANNUAL RATE		
		CASE I	CASE II	CASE III
JAPAN	22	19	14	13
UNITED STATES	15	9	6	9
UNITED KINGDOM	6	9	6	7
WEST GERMANY	8	9	5	10
ITALY	14	4	10	7
FRANCE	8	19	8	9
WEIGHTED AVE.	14	11	7	9

TAB C

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT.

JAPAN

CASE I

INDUSTRIAL SECTOR	TOTAL CHANGE	CHANGE IN OUTPUT DUE TO CHANGE IN:			
		PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
Iron and steel	25.36	1.65	0.16	11.34	12.92
Non-ferrous metals	42.27	3.58	0.26	13.17	25.26
Fabricated metals	33.52	2.79	0.20	11.71	19.82
Chemicals	27.23	7.09	0.35	4.29	15.51
Textiles	25.07	8.54	0.15	1.79	9.59
Leather	21.53	8.62	0.19	1.96	10.86
Lumber	24.34	3.07	0.22	13.86	7.19
Paper products	24.90	4.95	0.65	5.19	11.91
Industrial machinery	29.77	1.11	0.11	15.84	13.11
Electrical machinery	34.25	2.35	0.12	11.23	20.35
Transportation equipment	19.33	2.36	0.36	13.93	5.39
Precision instruments	30.78	5.04	0.22	6.12	19.40
Misc. manufacturing	25.64	5.07	0.26	5.50	13.18
Construction	20.67	0.62	0.09	13.92	2.55
Utilities	19.37	6.76	0.84	5.23	5.54
TOTAL CHANGE WEIGHTED BY GROSS FINAL DEMAND	21.93	5.75	0.51	7.96	7.75

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

JAPAN

CASE II

INDUSTRIAL SECTOR	TOTAL CHANGE	CHANGE IN OUTPUT DUE TO CHANGE IN:			
		PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
Iron and steel	18.1	0.99	0.17	7.21	10.27
Non-ferrous metals	30.79	2.15	0.28	8.37	19.99
Fabricated metals	24.22	1.68	0.22	7.34	14.98
Chemicals	19.54	4.26	0.37	2.73	12.27
Textiles	14.03	5.14	0.16	1.14	7.59
Leather	15.23	5.19	0.21	1.25	8.58
Lumber	15.58	1.85	0.24	6.81	5.68
Paper products	17.85	3.59	0.91	3.93	9.42
Industrial machinery	20.97	0.67	0.11	9.81	10.37
Electrical machinery	24.91	1.41	0.13	7.27	16.10
Transportation equipment	13.04	1.42	0.38	5.97	5.27
Precision instruments	22.51	3.04	0.23	3.89	15.35
Misc. manufacturing	18.27	3.43	0.28	4.13	10.43
Construction	12.34	0.37	0.10	12.02	0.35
Utilities	13.47	4.03	0.91	3.35	5.18
TOTAL CHANGE WEIGHTED BY GROSS FINAL DEMAND	15.20	3.46	0.55	5.06	6.14

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

JAPAN

CASE III

INDUSTRIAL SECTOR	TOTAL CHANGE	CHANGE IN OUTPUT DUE TO CHANGE IN:			
		PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
Iron and steel	13.97	1.40	0.19	6.70	5.68
Non-ferrous metals	22.25	3.03	0.31	7.73	11.12
Fabricated metals	17.81	2.37	0.24	5.92	8.28
Chemicals	15.78	6.00	0.41	2.54	6.83
Textiles	12.70	7.24	0.18	1.84	3.22
Leather	13.47	7.31	0.23	1.16	1.79
Lumber	14.23	2.55	0.27	2.10	3.16
Paper products	14.95	5.65	1.00	3.65	5.25
Industrial machinery	15.97	0.94	0.12	9.13	5.77
Electrical machinery	17.85	1.90	0.18	5.76	3.65
Transportation equipment	11.28	1.90	0.42	5.59	2.37
Precision instruments	15.59	4.27	0.26	3.62	3.52
Misc. manufacturing	14.78	4.83	0.31	3.88	5.82
Construction	12.31	0.52	0.11	11.18	3.10
Utilities	12.71	5.74	1.00	3.12	2.85
TOTAL CHANGE WEIGHTED BY GROSS FINAL DEMAND	13.50	4.87	0.60	4.70	3.41

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

UNITED STATES

CASE I

CHANGE IN OUTPUT DUE TO CHANGE IN:

<u>INDUSTRIAL SECTOR</u>	<u>TOTAL CHANGE</u>	<u>PERSONAL CONSUMPTION</u>	<u>GOVERNMENT SPENDING</u>	<u>CAPITAL INVESTMENT</u>	<u>INVENTORIES</u>
Iron and steel	15.23	2.63	0.34	4.79	3.46
Non-ferrous metals	17.46	2.79	0.38	4.99	9.29
Fabricated metals	12.61	2.91	0.31	4.81	4.58
Chemicals	10.76	4.85	0.21	1.17	4.53
Textiles	9.60	6.23	0.06	0.36	2.95
Leather	7.43	6.63	0.02	0.10	0.67
Lumber	11.37	3.74	0.23	4.20	3.19
Paper products	11.18	5.26	0.21	1.13	4.58
Industrial machinery	15.59	1.43	0.19	7.56	5.52
Electrical machinery	12.93	2.64	0.36	4.38	5.54
Transportation equipment	12.76	2.68	0.35	4.15	5.58
Precision instruments	11.06	3.12	0.30	3.77	3.86
Misc. manufacturing	7.07	4.25	0.59	-0.16	2.39
Construction	9.63	0.99	0.43	7.73	0.43
Utilities	6.39	5.54	0.16	0.22	1.73
TOTAL CHANGE WEIGHTED BY GROSS FINAL DEMAND	10.01	4.70	0.19	2.15	2.97

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

UNITED STATES

CASE II

INDUSTRIAL SECTOR	TOTAL CHANGE	CHANGE IN OUTPUT DUE TO CHANGE IN:			
		PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
Iron and steel	6.56	2.24	0.02	3.83	0.37
Non-ferrous metals	6.93	2.38	0.02	3.53	0.95
Fabricated metals	5.17	2.48	0.02	3.16	0.51
Chemicals	5.45	2.14	0.01	3.82	0.46
Textiles	5.91	5.36	0.00	0.26	0.30
Leather	5.80	5.66	0.00	0.07	0.07
Lumber	6.54	3.19	0.01	3.01	0.33
Paper products	5.81	4.02	0.01	3.06	0.66
Industrial machinery	7.31	1.22	0.01	5.40	0.67
Electrical machinery	5.98	2.20	0.02	3.13	0.57
Transportation equipment	5.85	2.29	0.02	2.97	0.57
Precision instruments	5.78	2.66	0.02	2.70	0.39
Misc. manufacturing	3.79	3.63	0.04	-0.12	0.22
Construction	5.45	0.84	0.03	5.54	0.01
Utilities	5.59	4.73	0.01	0.63	0.13
TOTAL CHANGE WEIGHTED BY GROSS FINAL DEMAND	5.87	4.01	0.01	1.54	0.30

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

UNITED KINGDOM

CASE I

INDUSTRIAL SECTOR	TOTAL CHANGE	CHANGE IN OUTPUT DUE TO CHANGE IN:			
		PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
Iron and steel	13.32	1.82	0.16	10.43	0.91
Non-ferrous metals	23.28	4.11	0.37	19.57	-0.67
Fabricated metals	12.50	2.72	0.18	7.43	2.20
Chemicals	10.40	3.85	0.23	4.52	1.79
Textiles	8.24	5.41	0.07	0.98	1.77
Leather	9.24	5.71	0.02	0.34	3.16
Lumber	23.87	4.44	0.21	15.18	4.04
Paper products	15.50	5.86	0.36	5.70	3.58
Industrial machinery	17.04	0.80	0.10	16.36	-0.14
Electrical machinery	16.69	1.61	0.25	11.57	3.27
Transportation equipment	11.86	1.58	0.25	6.76	3.28
Precision instruments	12.70	2.19	0.35	6.61	3.55
Misc. manufacturing	11.89	3.70	0.18	6.30	1.71
Construction	20.66	1.01	0.13	18.58	0.94
Utilities	9.19	4.69	0.16	3.51	0.83
TOTAL CHANGE WEIGHTED BY GROSS FINAL DEMAND	10.62	3.92	0.25	5.57	1.03

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

UNITED KINGDOM

CASE II

CHANGE IN OUTPUT DUE TO CHANGE IN:

INDUSTRIAL SECTOR	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
Iron and steel	4.54	1.06	0.39	0.57	2.52
Non-ferrous metals	2.44	2.33	0.91	1.37	-1.85
Fabricated metals	8.46	1.58	0.40	0.40	5.08
Chemicals	8.00	2.24	0.56	0.25	4.95
Textiles	8.27	3.14	0.17	0.05	4.93
Leather	12.13	3.32	0.06	0.02	8.73
Lumber	15.39	2.50	0.52	0.03	11.17
Paper products	14.49	3.40	0.37	0.31	9.99
Industrial machinery	0.99	0.47	0.15	0.39	-0.52
Electrical machinery	11.21	0.93	0.60	0.63	9.04
Transportation equipment	10.92	0.92	0.60	0.37	9.02
Precision instruments	12.31	1.27	0.25	0.35	9.82
Misc. manufacturing	7.64	2.15	0.43	0.34	4.72
Construction	4.52	0.58	0.33	1.01	2.60
Utilities	5.61	2.72	0.39	0.19	2.33
TOTAL CHANGE WEIGHTED BY GROSS FINAL DEMAND	6.18	2.27	0.61	0.30	3.00

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

UNITED KINGDOM

CASE III

CHANGE IN OUTPUT DUE TO CHANGE IN:

<u>INDUSTRIAL SECTOR</u>	<u>TOTAL CHANGE</u>	<u>PERSONAL CONSUMPTION</u>	<u>GOVERNMENT SPENDING</u>	<u>CAPITAL INVESTMENT</u>	<u>INVENTORIES</u>
Iron and steel	8.66	1.53	0.09	6.09	0.95
Non-ferrous metals	14.29	3.35	0.21	11.02	-0.79
Fabricated metals	9.01	2.28	0.09	4.33	2.31
Chemicals	7.88	3.24	0.13	2.64	1.87
Textiles	7.01	4.54	0.04	0.57	1.86
Leather	8.32	4.79	0.01	0.20	3.31
Lumber	16.94	3.72	0.12	8.35	4.23
Paper products	12.20	4.92	0.20	3.32	3.75
Industrial machinery	10.06	0.67	0.03	9.55	-0.20
Electrical machinery	11.67	1.35	0.14	6.75	3.43
Transportation equipment	3.84	1.33	0.14	3.95	3.42
Precision instruments	9.61	1.84	0.20	3.95	3.72
Misc. manufacturing	3.67	3.10	0.10	3.68	1.79
Construction	12.75	0.84	0.08	10.25	0.98
Utilities	6.94	3.93	0.09	2.05	0.97
TOTAL CHANGE WEIGHTED BY GROSS FINAL DEMAND	7.81	3.28	0.14	3.25	1.14

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

GERMANY

Case I

INDUSTRIAL SECTOR	TOTAL CHANGE	CHANGE IN OUTPUT DUE TO CHANGE IN:			
		PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
Iron and steel	13.12	1.29	-0.07	5.43	5.67
Non-ferrous metals	22.79	3.26	-0.15	8.10	11.58
Fabricated metals	10.77	1.71	-0.03	5.01	8.13
Chemicals	9.38	2.57	-0.03	2.57	8.33
Textiles	9.74	4.36	-0.03	0.60	4.61
Leather	8.33	4.44	-0.02	0.34	3.58
Lumber	11.01	2.58	-0.04	4.63	3.96
Paper products	10.73	3.13	-0.19	2.94	5.35
Industrial machinery	12.55	1.03	-0.04	7.27	5.23
Electrical machinery	10.73	1.54	-0.05	5.30	3.93
Transportation equipment	7.61	1.3	-0.04	3.83	2.65
Precision instruments	8.33	1.41	-0.03	3.60	2.35
Misc. manufacturing	6.64	3.04	-0.03	0.95	2.78
Construction	12.80	0.24	-0.02	11.18	1.41
Utilities	8.87	3.10	-0.11	2.66	3.26
TOTAL CHANGE WEIGHTED BY GROSS FINAL DEMAND	8.44	2.57	-0.17	3.35	2.63

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

GERMANY

CASE II

CHANGE IN OUTPUT DUE TO CHANGE IN:

INDUSTRIAL SECTOR	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
Iron and steel	4.78	1.32	0.17	0.53	2.74
Non-ferrous metals	9.41	3.34	0.36	0.36	5.85
Fabricated metals	4.21	1.75	0.19	0.53	1.73
Chemicals	4.91	2.63	0.19	0.27	1.91
Textiles	5.51	4.47	0.06	0.03	2.31
Leather	5.13	4.54	0.06	0.02	1.50
Lumber	4.81	2.60	0.09	0.49	1.63
Paper products	5.99	3.29	0.44	0.31	2.03
Industrial machinery	3.22	1.05	0.19	0.77	1.81
Electrical machinery	3.94	1.58	0.15	0.54	1.65
Transportation equipment	2.87	1.38	0.09	0.41	1.02
Precision instruments	2.93	1.85	0.05	0.39	0.33
Misc. manufacturing	4.44	3.11	0.07	0.09	1.17
Construction	2.08	0.24	0.06	1.19	0.59
Utilities	5.08	3.17	0.27	0.28	1.35
TOTAL CHANGE WEIGHTED BY GROSS FINAL DEMAND	4.51	2.63	0.40	0.36	1.12

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

GERMANY

CASE III

INDUSTRIAL SECTOR	CHANGE IN OUTPUT DUE TO CHANGE IN:				
	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
Iron and steel	12.22	1.80	0.22	4.00	6.20
Non-ferrous metals	22.09	4.55	0.47	5.98	11.09
Fabricated metals	10.29	2.39	0.25	3.70	3.95
Chemicals	9.87	3.58	0.21	1.80	4.15
Textiles	11.22	6.89	0.06	0.44	4.81
Leather	9.95	6.19	0.07	0.25	3.43
Lumber	10.80	3.54	0.12	3.41	3.72
Paper products	11.75	4.37	0.57	2.17	4.68
Industrial machinery	11.19	1.43	0.34	5.36	4.15
Electrical machinery	10.04	2.15	0.19	3.91	3.78
Transportation equipment	7.16	1.83	0.12	2.87	2.35
Precision instruments	7.69	1.97	0.08	3.39	2.25
Misc. manufacturing	7.63	4.24	0.10	0.63	2.67
Construction	10.00	0.33	0.07	6.25	1.35
Utilities	9.73	4.32	0.35	1.95	3.10
TOTAL CHANGE WEIGHTED BY GROSS FINAL DEMAND	9.15	3.58	0.52	2.48	2.57

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

ITALY

CASE I

INDUSTRIAL SECTOR	CHANGE IN OUTPUT DUE TO CHANGE IN:			
	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT INVENTORIES
Iron and steel	1.82	0.87	0.15	0.25
Non-ferrous metals	16.93	2.11	0.25	0.32
Fabricated metals	1.75	1.12	0.13	0.21
Chemicals	3.49	2.21	0.22	0.07
Textiles	2.79	2.50	0.06	0.03
Leather	2.19	2.07	0.03	0.01
Lumber	3.71	2.02	0.20	0.19
Paper products	5.13	2.93	0.99	0.06
Industrial machinery	1.70	0.59	0.14	0.23
Electrical machinery	1.71	1.30	0.11	0.25
Transportation equipment	-0.88	1.57	0.17	0.15
Precision instruments	1.62	1.52	0.14	0.28
Misc. manufacturing	3.97	2.45	0.13	0.10
Construction	0.60	0.15	0.06	0.28
Utilities	3.54	2.50	0.33	0.08
TOTAL CHANGE WEIGHTED BY GROSS FINAL DEMAND	3.33	2.16	0.60	0.09
				0.47

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

ITALY

CASE II

INDUSTRIAL SECTOR	CHANGE IN OUTPUT DUE TO CHANGE IN:				
	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
Iron and steel	10.10	2.34	0.20	7.22	0.33
Non-ferrous metals	23.86	5.70	0.35	9.19	8.62
Fabricated metals	9.61	3.02	0.18	6.23	0.17
Chemicals	8.89	5.97	0.30	2.02	0.50
Textiles	7.07	6.73	0.06	0.13	0.15
Leather	5.90	5.57	0.04	0.24	0.06
Lumber	12.03	5.46	0.28	5.51	0.79
Paper products	11.70	7.90	1.38	1.72	0.69
Industrial machinery	10.37	1.53	0.19	8.17	0.42
Electrical machinery	11.03	3.50	0.15	7.35	0.03
Transportation equipment	7.05	4.25	0.24	4.24	-1.68
Precision instruments	12.23	4.11	0.20	8.12	-0.20
Misc. manufacturing	10.36	6.61	0.18	2.79	0.78
Construction	11.42	0.40	0.08	10.93	0.01
Utilities	9.78	6.76	0.46	2.19	0.38
TOTAL CHANGE WEIGHTED BY GROSS FINAL DEMAND	9.76	5.83	0.84	2.81	0.29

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

ITALY

CASE III

INDUSTRIAL SECTOR	TOTAL CHANGE	CHANGE IN OUTPUT DUE TO CHANGE IN:		
		PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT
Iron and steel	8.54	1.37	0.12	6.53
Non-ferrous metals	25.32	3.33	0.21	8.32
Fabricated metals	7.78	1.76	0.11	5.64
Chemicals	6.43	3.49	0.13	1.83
Textiles	4.32	3.93	0.03	0.12
Lumber	3.58	3.26	0.02	0.21
Paper products	9.56	3.19	0.16	4.93
Industrial machinery	8.08	4.62	0.82	1.56
Electrical machinery	9.09	0.93	0.11	7.39
Transportation equipment	8.84	2.04	0.09	6.65
Precision instruments	3.84	2.48	0.14	3.84
Misc. manufacturing	9.56	2.40	0.12	7.35
Construction	7.71	3.85	0.11	2.53
Utilities	10.19	0.23	0.05	9.89
	6.79	3.95	0.27	1.98
TOTAL CHANGE WEIGHTED	6.89	3.41	0.50	2.54
BY GROSS FINAL DEMAND				0.45

INDUSTRIAL SECTOR

TOTAL
CHANGEPERSONAL
CONSUMPTIONGOVERNMENT
SPENDINGCAPITAL
INVESTMENT

INVENTORIES

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

FRANCE

CASE I

CHANGE IN OUTPUT DUE TO CHANGE IN:

INDUSTRIAL SECTOR	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
Iron and steel	16.12	4.05	3.88	5.97	2.22
Non-ferrous metals	21.36	5.66	5.69	7.20	2.81
Fabricated metals	18.27	4.85	5.08	6.69	1.63
Chemicals	19.20	9.05	5.41	2.90	1.23
Textiles	12.87	11.04	2.15	0.62	-0.95
Leather	13.31	11.98	1.11	0.15	0.97
Wood	19.42	8.58	3.60	3.71	2.43
Paper products	29.05	9.73	15.98	2.23	1.97
Industrial machinery	16.08	2.02	2.76	9.66	1.52
Electrical machinery	19.03	5.24	5.71	5.19	1.83
Transportation equipment	18.71	6.49	6.31	3.13	0.73
Precision instruments	25.79	8.23	6.93	6.62	4.91
Plastic manufacturing	16.76	8.73	4.29	1.56	2.16
Construction	14.49	1.80	2.68	9.33	0.52
Utilities	19.07	10.40	6.17	1.84	0.66
TOTAL CHANGE WEIGHTED	24.88	7.68	13.26	3.25	0.69
BRGROSS FINAL DEMAND					

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

FRANCE

CASE II

CHANGE IN OUTPUT DUE TO CHANGE IN:

INDUSTRIAL SECTOR	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
Iron and steel	9.11	2.04	0.10	5.03	1.95
Nonferrous metals	11.52	2.85	0.15	5.07	2.45
Fabricated metals	9.65	2.45	0.13	5.63	1.48
Chemicals	8.75	4.56	0.14	2.44	1.61
Textiles	5.32	5.56	0.06	0.54	-0.33
Leather	6.59	5.58	0.03	0.13	0.35
Lumber	10.56	4.37	0.09	3.97	2.13
Paper products	8.34	4.90	0.33	1.93	1.72
Industrial machinery	10.66	1.02	0.07	8.13	1.43
Electrical machinery	9.32	3.15	0.15	4.37	1.65
Transportation equipment	5.80	3.27	0.22	2.64	0.58
Precision instruments	14.17	4.14	0.16	5.58	4.29
Misc. manufacturing	7.72	4.40	0.11	1.31	1.90
Construction	9.42	0.91	0.07	7.99	0.55
Utilities	7.52	5.24	0.15	1.55	0.37
TOTAL CHANGE WEIGHTED BY GROSS TOTAL DEMAND	7.55	3.87	0.34	2.74	0.60

APPENDIX C

PARTIAL SECTOR OUTPUT RESULTS BY COUNTRY, CASE AND DEMAND COMPONENT

FRANCE

CASE III

CHANGE IN OUTPUT DUE TO CHANGE IN:

INDUSTRIAL SECTOR	TOTAL CHANGE	CHANGE IN OUTPUT DUE TO CHANGE IN:			INVENTORIES
		PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	
Iron and steel	-10.66-	2.72	-	-	-
Non-ferrous metals	13.51	3.11	0.10	5.19	3.02
Fabricated metals	10.97	2.67	0.23	6.25	3.81
Chemicals	10.27-	4.97	0.21	5.91	2.29
Textiles	5.37	6.06	0.22-	2.51-	2.57-
Leather	7.61	6.08	0.09	0.55	-1.33
Lumber	-12.40-	4.77-	0.05	0.13	1.35
Wood products	10.70	5.34	0.15-	4.09-	3.39-
Industrial machinery	11.90	1.11	0.62	1.99	2.75
Electrical machinery	-10.80-	3.43-	0.11	8.39	2.29
Transportation equipment	7.71	3.56	0.23-	4.51-	2.62-
Precision instruments	17.36	4.52	0.34	2.72	1.09
Misc. manufacturing	-9.35-	4.79-	0.25	5.75	6.85
Construction	10.07	0.99	0.13-	1.35-	3.03-
Utilities	8.48	5.71	0.11	8.24	0.73
			0.25	1.60	0.92
TOTAL CHANGE WEIGHTED	8.54	4.22	0.54	2.92	0.96
BY GROSS FINAL DEMAND					

TAB D

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS
JAPAN

CASE I

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
FRUITS, CROPS TYPE A	17.13	13.33	0.33	0.91	2.57
FRUITS, CROPS TYPE B	50.34	25.52	0.76	5.41	18.35
LIVESTOCK, EDIBLE	14.91	11.69	0.27	1.10	1.79
LUMBERING	33.89	6.19	0.47	28.26	2.98
FISHERIES	20.22	10.76	0.26	0.61	8.76
COKE, COAL PRODUCTS	32.03	1.65	0.14	12.44	17.80
REFINED PRODUCTS	27.50	6.99	0.52	7.73	12.35
OTHER MINERALS	28.24	2.24	0.19	18.74	7.08
CERAMICS	24.39	2.10	0.16	14.24	7.81
MEAT, MEAT PRODUCTS	14.72	12.37	0.27	0.31	1.77
MARINE PRODUCTS	16.84	10.92	0.24	0.20	5.58
GRAINS	12.80	11.57	0.17	0.25	0.82
OTHER EDIBLES	20.02	12.17	0.30	0.52	7.04
BEVERAGES	11.91	10.23	0.93	0.73	0.12
TORACCO	12.39	11.82	0.00	0.00	0.58
PIG IRON, INGOTS	29.30	1.72	0.14	11.77	15.66
MILL PRODUCTS	24.38	1.52	0.14	11.08	11.23
NON-FERROUS	42.42	3.57	0.20	13.17	25.40
FABRICATED STEELS	33.97	2.82	0.18	11.73	19.24
PETRO- OR BASIC	20.92	6.05	0.46	5.15	18.26
SYN FIBER FEEDSTOCK	20.98	6.32	0.13	1.76	12.67
OTHER	30.33	8.59	1.31	2.63	18.30
RUBBER	19.56	3.87	0.29	5.98	8.40
NATURAL	21.68	8.39	0.14	2.13	11.03
SYNTHETIC	19.59	7.38	0.13	1.97	10.09
FABRICS	18.66	8.31	0.12	1.97	8.27
CLOTHING FURS	22.85	9.10	0.22	1.70	11.83
LEATHER GOODS	22.40	8.73	0.22	2.02	11.43
FURNITURE	28.63	3.94	0.35	10.96	13.39
LUMBER	22.69	2.64	0.24	14.72	4.86
PULP PAPER	27.33	5.46	0.79	5.44	14.64
PACKAGING	23.06	6.15	0.70	5.67	10.54
OFFICE SUPPLIES	22.38	4.93	1.12	7.68	8.64
AGRI., INDUSTRIAL	29.83	1.16	0.11	15.41	13.14
ELECTRIC	34.22	2.45	0.12	11.39	20.25
TRANSPORT	19.25	2.23	0.27	11.19	5.55
PRECISION INSTRUMENTS	29.45	5.70	0.29	5.44	17.03
MISC. MANUFACTURE	25.36	5.77	0.32	6.31	12.96
CIVIL ENGINEERING	20.30	0.00	0.0	20.30	0.0
BUILDING	19.90	1.11	0.09	19.15	0.55
GAS	15.95	8.55	0.47	3.51	3.42
ELECTRIC POWER	22.97	6.99	0.47	5.49	9.12
WATER, SEWAGE	14.06	5.71	2.75	2.66	2.95
TRANSPORT	15.72	6.54	0.37	4.69	4.12
COMMUNICATION	19.09	6.71	0.66	5.85	5.87
WHOLESALE, RETAIL	19.19	6.92	0.26	6.32	5.67
PUBLISHING, PRINTING	18.17	7.58	1.16	3.54	5.87
BANKING	17.93	7.55	0.69	4.68	5.00
REAL ESTATE	12.26	11.52	0.03	0.34	0.37
RENTALS	20.03	6.12	0.76	5.66	5.49
RESEARCH	11.35	11.77	0.07	0.0	0.0
PUBLIC SERVICES	8.60	0.40	7.10	0.53	0.56
OTHER	13.33	6.29	2.56	2.27	2.21
INDISTRIBUTED	20.97	6.25	0.75	6.42	7.55
LABOR	20.45	5.99	0.72	7.09	6.66

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS
JAPAN

CASE II

	<u>TOTAL</u> <u>OUTPUT</u>	<u>PERSONAL</u> <u>CONSUMPTION</u>	<u>GOVERNMENT</u> <u>SPENDING</u>	<u>CAPITAL</u> <u>FORMATION</u>	<u>INVESTMENTS</u>
FRUITS, CROPS TYPE A	10.98	8.02	0.35	0.58	2.03
FRUITS, CROPS TYPE B	34.13	15.36	0.62	3.44	14.52
LUMBERING	22.00	7.03	0.51	15.42	2.35
FISHERIES	13.96	3.72	0.28	0.26	6.92
COKE, COAL PRODUCTS	23.14	6.49	0.15	7.91	14.09
PETRO PRODUCTS	19.46	4.16	0.56	4.91	9.77
OTHER MINERALS	19.06	1.35	0.20	11.91	5.00
CERAMICS	16.71	1.30	0.17	9.05	6.18
MEAT, MEAT PRODUCTS	9.33	7.44	0.25	0.20	1.40
MAKING PRODUCTS	11.31	6.51	0.26	0.13	4.41
GRAINS	7.95	6.95	0.19	0.16	3.65
OTHER EDIBLES	13.54	7.32	0.32	0.33	5.57
BEVERAGES	7.51	6.15	0.09	0.47	0.10
TOBACCO	7.57	7.11	0.00	0.00	0.46
PIG IRON, INGOTS	21.05	1.04	0.15	7.88	12.46
MILL PRODUCTS	17.06	0.98	0.15	7.04	8.89
NON-FERROUS	30.92	2.15	0.30	8.37	20.10
FABRICATED SHAPES	24.57	1.69	0.20	7.48	15.22
PETRO- OR BASIC	21.86	3.64	0.49	3.27	14.45
SYN FIBER FEEDSTOCK	15.39	3.80	0.14	1.12	10.03
OTHER	22.73	5.19	1.41	1.62	14.68
RUBBER	13.74	2.34	0.32	4.48	6.65
NATURAL	15.27	5.04	0.15	1.35	8.73
SYNTHETIC	13.83	4.45	0.14	1.25	7.98
FABRICS	12.92	5.00	0.12	1.25	6.54
CLOTHING PHS	16.15	5.48	0.23	1.03	9.36
LEATHER GOODS	15.81	5.25	0.23	1.29	9.04
FURNITURE	20.30	2.37	0.38	6.95	10.59
LUMBER	15.16	1.71	0.25	9.35	3.84
PULP PAPER	19.78	3.88	0.95	3.46	11.59
PACKAGING	16.40	3.70	0.75	3.60	8.34
OFFICE SUPPLIES	15.90	2.96	1.21	4.88	5.84
AGRI., INDUSTRIAL	21.01	0.70	0.12	9.79	10.40
ELECTRIC	24.87	1.47	0.13	7.24	16.02
TRANSPORT	13.15	1.36	0.30	7.11	4.39
PRECISION INSTRUMENTS	20.57	1.43	0.31	3.46	13.47
MISC. MANUFACTURE	18.09	3.47	0.35	4.01	10.25
CIVIL ENGINEERING	12.90	0.0	0.0	12.90	0.0
BUILDING	12.73	0.67	0.10	11.53	0.44
GAS	10.58	4.14	0.51	2.23	2.70
ELECTRIC POWER	15.99	4.15	0.51	4.12	7.21
WATER, SEWAGE	10.42	3.44	2.96	1.69	2.33
TRANSPORT	10.57	3.94	0.40	2.98	3.26
COMMUNICATION	13.11	4.04	0.71	3.72	4.64
WHOLESALE, RETAIL	12.96	4.17	0.25	4.02	4.48
PUBLISHING, PRINT.	12.72	4.57	1.25	2.25	4.65
BANKING	12.22	4.55	0.74	2.98	3.96
REAL ESTATE	7.47	6.93	0.03	0.22	0.29
RENTALS	13.87	3.69	0.82	4.23	5.13
RESEARCH	7.17	7.09	0.08	0.0	0.0
PUBLIC SERVICES	8.59	0.24	7.66	0.34	0.45
OTHER	9.74	3.79	2.76	1.44	1.75
REDISTRIBUTED	14.62	3.76	0.81	4.08	5.97
LABOR	14.15	3.60	0.77	4.50	5.27

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS

JAPAN

Case III

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INFLATIONS
FRUITS,CROPS TYPE A	13.35	11.29	0.39	0.54	1.13
FRUITS,CROPS TYPE B	33.80	21.63	0.90	3.27	8.08
LIVESTOCK, EDIBLE	11.70	9.99	0.12	0.70	0.79
LUMBERING	121.45	5.24	0.50	14.34	1.31
FISHERIES	13.55	9.15	0.31	0.24	3.86
COKE, COAL PRODUCTS	15.76	1.50	0.16	7.35	7.84
REFINED PRODUCTS	16.47	5.85	0.62	4.57	5.44
OTHER MINERALS	15.31	11.90	0.22	11.08	3.17
CERAMICS	13.09	1.85	0.19	8.42	3.44
MEAT, MEAT PRODUCTS	11.77	10.48	0.32	0.18	0.78
MARINE PRODUCTS	12.03	1.18	0.29	0.12	2.46
GRAINS	10.51	9.79	0.25	0.15	0.36
OTHER FOODS	14.37	10.31	0.36	0.31	3.10
BEVERAGES	10.13	10.68	0.68	0.43	0.25
TOBACCO	10.27	10.01	0.00	0.00	0.26
PIG IRON, INGOTS	15.48	1.46	0.17	6.96	6.92
MILL PRODUCTS	13.63	1.38	0.16	5.55	4.95
NON-FERROUS	22.32	3.02	0.33	7.79	11.18
FABRICATED SHAPES	18.00	2.39	0.22	5.93	8.47
PETRO- OR BASIC	15.75	5.13	0.54	3.04	9.24
SYN FIBER FEEDSTOCK	12.13	5.34	0.15	1.04	5.58
OTHER	18.44	7.29	1.55	1.55	8.06
RUBBER	11.16	3.26	0.35	4.13	3.70
NATURAL	13.38	7.11	0.16	1.26	4.85
SYNTHETIC	12.03	6.27	0.16	1.15	4.44
FABRICS	11.99	7.04	0.14	1.16	3.64
CLOTHING FURS	14.18	7.73	0.26	1.01	5.21
LEATHER GOODS	13.88	7.40	0.25	1.20	5.23
FURNITURE	16.12	3.34	0.41	6.42	5.89
LUMBER	13.52	2.41	0.28	8.70	2.14
PULP PAPER	15.06	5.47	0.93	3.22	6.45
PACKAGING	14.03	5.21	0.83	3.35	4.64
OFFICE SUPPLIES	13.86	4.18	1.33	4.54	3.82
AGRI., INDUSTRIAL	15.01	0.99	0.13	9.11	5.78
ELECTRIC	17.87	2.08	0.15	5.73	8.91
TRANSPORT	11.28	1.91	0.32	6.61	2.44
PRECISION INSTRUMENTS	15.88	4.82	0.34	3.22	7.50
MISC. MANUFACTURE	14.71	4.89	0.38	3.73	5.70
CIVIL ENGINEERING	12.00	0.00	0.0	12.00	0.0
BUILDING	12.02	0.94	0.11	10.73	0.24
GAS	11.38	7.24	0.56	2.08	1.50
ELECTRIC POWER	14.25	5.85	0.56	3.83	4.01
WATER, SEWAGE	10.96	4.83	3.25	1.57	1.30
TRANSPORT	10.56	5.55	0.44	2.77	1.82
COMMUNICATION	12.51	5.69	0.78	3.46	2.58
WHOLESALE, RETAIL	12.42	5.87	0.31	3.74	2.49
PUBLISHING, PRINTING	12.49	6.44	1.37	2.09	2.59
BANKING	12.19	6.40	0.82	2.77	2.20
REAL ESTATE	10.16	9.77	0.03	0.20	0.16
RENTALS	12.08	5.19	0.90	3.94	2.85
RESEARCH	10.07	9.98	0.09	0.0	0.0
PUBLIC SERVICES	9.31	6.34	8.41	0.32	0.25
OTHER	13.30	5.30	0.89	3.82	3.32
INDISTRIBUTED	13.05	5.07	0.85	4.19	2.93

APPENDIX D
COMPLETE SECTION OUTPUT RESULTS
UNITED STATES

CASE I

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
LIVESTOCK AND PRODUCTS	9.39	6.54	0.02	0.15	2.67
OTHER FARM PRODUCTS	12.83	5.91	-0.02	0.20	6.74
FORESTRY AND FISHERY PRODUCTS	12.53	6.82	-0.00	2.61	3.10
AGRICULTURAL SERVICES	11.13	5.82	0.04	0.74	4.53
FERROUS DRES	24.65	3.77	0.32	6.62	13.93
NON FERROUS DRES	21.41	3.21	0.60	5.48	12.11
COAL MINING	15.49	3.56	0.20	1.51	10.93
CRUDE, NATURAL GAS	13.19	5.70	0.17	0.97	6.46
REFINED PRODUCTS	10.74	5.49	0.16	0.92	4.23
STONE AND CLAY	11.02	2.35	0.32	5.44	3.72
STONE AND CLAY PRODUCTS	12.78	1.59	0.39	6.87	3.93
FERTILIZER MINERALS	11.76	3.72	0.28	1.33	6.45
GLASS AND GLASS PRODUCTS	10.35	5.00	0.16	1.64	3.55
FOOD AND KINDRED PRODUCTS	8.62	6.61	0.02	0.10	1.89
TOBACCO	9.34	6.23	0.00	0.04	3.58
IRON AND STEEL	13.47	2.71	0.30	5.00	7.45
NON FERROUS METALS	17.54	2.68	0.38	8.18	9.29
METAL CONTAINERS	11.53	5.91	0.09	0.52	5.01
HEAT, PLUMB., STRUCT. SHAPES	12.12	0.94	0.41	7.92	2.86
STAMPINGS, SCREWS, BOLTS	11.52	3.56	0.25	3.35	4.06
OTHER FABRICATED SHAPES	12.89	3.29	0.28	3.89	5.44
CHEMICALS	11.89	4.33	0.27	1.11	6.18
PLASTICS AND SYNTHETIC MATERIALS	10.59	4.85	0.15	1.27	4.21
DRUGS, CLEANING, TOILET PREPARAT	9.17	6.00	0.11	0.15	2.91
PAINTS AND ALLIED PRODUCTS	12.65	3.52	0.31	3.25	5.77
RUBBER AND MISC. PRODUCTS	10.63	4.84	0.19	1.88	3.73
FIBERS, YARNS AND FABRICS	10.31	6.24	0.07	0.39	3.21
MISC. FABRICATED TEXTILES	8.32	5.79	0.12	0.60	1.80
MISC. TEXTILES, FLOOR COVERINGS	12.07	5.92	0.09	1.31	4.74
CLOTHING, FURS	8.60	6.60	0.02	0.08	1.90
TANNING, INDUSTRIAL LEATHER	7.18	6.68	0.03	0.20	0.27
FOOTWEAR, OTHER LEATHER PRODUCTS	7.47	6.67	0.01	0.07	0.71
FURNITURE	8.52	5.95	0.07	0.99	1.51
OTHER FURNITURE, FIXTURES	13.45	6.98	0.27	9.50	2.71
LUMBER	13.28	2.67	0.34	5.67	4.60
PAPER	12.20	5.35	0.19	1.19	5.45
PAPERBOARD	10.45	5.45	0.14	1.09	3.77
WOODEN CONTAINERS	11.27	4.98	0.17	1.49	4.63
OFFICE SUPPLIES	7.57	4.17	0.44	1.25	1.72
ENGINES, TURBINES	13.45	1.91	0.38	4.32	6.85
FARM MACHINERY	26.16	0.76	0.04	10.30	15.06
CONST. MINING, OIL FIELD EQUIPME	11.44	0.81	0.10	7.44	3.01
MATERIAL HANDLING MACHINERY	13.90	0.87	0.22	9.22	3.59
METAL WORKING MACHINERY	16.07	1.47	0.19	9.13	6.27
SPECIAL INDUSTRY MACHINERY	14.46	1.17	0.06	9.26	3.93
GENERAL INDUSTRIAL MACHINERY	15.02	1.54	0.23	7.04	6.21
MACHINE TOOLS	14.56	2.21	0.49	3.67	8.19
COMPUTER, OFFICE MACHINERY	14.54	0.86	0.23	9.48	4.96
VENDING MACHINES	13.76	1.83	0.19	7.10	4.64
INDUSTRIAL ELECTRICALS	13.83	1.45	0.30	7.17	4.91
HOUSEHOLD ELECTRICALS	10.40	5.54	0.07	1.31	3.48
LIGHTING AND WIRING	11.48	2.99	0.29	4.38	3.82
RADIO, TV AND COMM EQUIPMENT	13.34	2.56	0.61	2.80	7.07
COMPONENTS	13.99	2.34	0.58	2.83	8.24
MISC.	10.80	3.75	0.25	3.10	3.70
MOTOR VEHICLES	7.11	3.89	0.11	4.46	-1.34
AIRCRAFT	23.50	0.34	0.92	2.29	20.04
OTHER TRANSPORT MACHINERY	13.72	1.87	0.33	6.70	4.75
SCIENTIFIC AND CONTROL EQUIPMENT	11.89	2.33	0.38	0.27	4.90

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS

UNITED STATES

CASE I CONT.

	<u>TOTAL</u> <u>CHANGE</u>	<u>PERSONAL</u> <u>CONSUMPTION</u>	<u>GOVERNMENT</u> <u>SPENDING</u>	<u>CAPITAL</u> <u>INVESTMENT</u>	<u>TRANSFERS</u>
OPTICAL INSTRUMENTS	13.45	3.73	0.26	3.26	3.21
MISC. MANUFACTURES	9.92	5.85	0.09	1.14	2.84
SCRAP, RECYCLING	2.88	7.50	0.31	-4.35	-0.59
ORDNANCE AND ACCESSORIES	5.75	0.56	1.36	0.28	3.55
CONSTRUCTION	10.33	0.0	0.48	9.95	0.0
REPAIRS	7.35	4.16	0.48	0.95	1.76
UTILITIES	8.35	5.53	0.16	0.96	1.69
TRANSPORT SERVICES	9.07	4.58	0.26	1.64	2.59
COMMUNICATION	8.27	5.00	0.18	1.76	1.32
RADIO, TELEVISION	8.86	4.57	0.26	1.81	2.22
WHOLESALE, RETAIL	9.43	5.61	0.08	1.33	1.36
PRINTING, PUBLISHING	10.10	4.97	0.24	1.01	3.88
BANKING, INSURANCE	7.65	6.12	0.07	0.64	0.83
REAL ESTATE, RENTALS	7.96	6.01	0.06	0.80	1.08
AUTO REPAIR	7.73	5.84	0.09	0.99	0.81
MEDICAL, EDUCATIONAL SERVICES	6.41	6.06	0.16	0.08	0.11
HOTELS, PERSONAL SERVICES	7.21	6.19	0.09	0.37	0.55
BUSINESS SERVICES	8.88	4.57	0.26	1.92	2.23
FEDERAL ENTERPRISES	8.21	5.40	0.22	1.09	1.51
STATE ENTERPRISES	8.10	5.26	0.19	1.00	1.55
BUSINESS TRAVEL ENTERTAINMENT	10.27	4.63	0.22	2.38	3.04
AMUSEMENTS	5.22	5.95	0.09	0.55	-0.37
LABOR	9.87	4.48	0.22	2.35	2.82

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS
UNITED STATES

CASE II

	TOTAL CHANGE	PERCENT CONTRIBUTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
LIVESTOCK AND PRODUCTS	5.95	5.58	0.00	0.11	0.27
OTHER FARM PRODUCTS	5.87	5.04	-0.00	0.14	0.69
FORESTRY AND FISHERY PRODUCTS	8.09	5.81	-0.00	1.87	0.32
AGRICULTURAL SERVICES	5.96	4.96	0.00	0.53	0.46
PERMANENT DEBS	9.40	3.21	0.02	4.74	1.43
NO TROUS ONES	7.94	2.78	0.04	3.93	1.24
COAL	5.50	3.30	0.01	1.08	1.12
CRUDE, NATURAL GAS	5.15	4.86	0.01	0.62	0.66
REFINED PRODUCTS	5.71	4.42	0.01	0.59	0.44
STONE AND CLAY	6.29	2.00	0.02	3.89	0.39
STONE AND CLAY PRODUCTS	5.70	1.36	0.02	4.92	0.40
FERTILIZER MINERALS	4.00	3.17	0.02	0.95	0.60
GLASS AND GLASS PRODUCTS	5.81	4.25	0.01	1.17	0.36
FOOD AND KINDRED PRODUCTS	5.90	5.63	0.00	0.07	0.19
TOBACCO	5.70	5.31	0.00	0.03	0.37
IRON AND STEEL	6.58	2.32	0.02	3.58	0.76
NON FERROUS METALS	6.98	2.29	0.02	3.71	0.95
METAL CONTAINERS	5.94	5.64	0.01	0.37	0.51
HEAT, PLUMB., STRUCT. SHAPES	6.79	0.80	0.03	5.67	0.29
STAMPINGS, SCREWS, BOLTS	5.91	3.08	0.02	2.40	0.46
OTHER FABRICATED SHAPES	6.10	2.91	0.02	2.78	0.56
CHEMICALS	5.14	3.70	0.02	0.80	0.63
PLASTICS AND SYNTHETIC MATERIALS	5.58	4.23	0.01	0.91	0.43
DRUGS, CLEANING, TOILET PREPARAT	5.53	5.12	0.01	0.11	0.30
PAINTS AND ALLIED PRODUCTS	5.94	3.00	0.02	2.33	0.59
RUBBER AND MISC. PRODUCTS	5.86	4.13	0.01	1.34	0.39
FIBERS, YARNS AND FABRICS	5.94	5.32	0.00	0.28	0.34
MISC. FABRICATED TEXTILES	5.57	4.94	0.01	0.43	0.18
MISC. TEXTILES, FLOOR COVERINGS	6.48	5.05	0.01	0.94	0.49
CLOTHING, FURS	5.88	5.63	0.00	0.06	0.19
TANNING, INDUSTRIAL LEATHER	5.87	5.69	0.00	0.14	0.03
FOOTWEAR, OTHER LEATHER PRODUCTS	5.82	5.69	0.00	0.05	0.07
FURNITURE	5.94	5.07	0.00	0.71	0.15
OTHER FURNITURE, FIXTURES	7.93	0.84	0.02	5.80	0.28
LUMBER	6.83	2.29	0.02	4.06	0.47
PAPER	5.99	4.57	0.01	0.85	0.56
PAPERBOARD	5.93	4.65	0.01	0.78	0.39
WOODEN CONTAINERS	5.80	4.25	0.01	1.07	0.47
OFFICE SUPPLIES	4.65	3.56	0.03	0.89	0.18
ENGINES, TURBINES	5.44	1.63	0.02	3.09	0.70
FARM MACHINERY	9.57	0.65	0.00	7.38	1.54
CONST., MINING, OIL FIELD EQUIP	6.34	0.69	0.01	5.33	0.31
MATERIAL HANDLING MACHINERY	7.73	0.74	0.01	6.60	0.37
METAL WORKING MACHINERY	7.74	1.26	0.01	5.83	0.64
SPECIAL INDUSTRY MACHINERY	8.34	0.99	0.00	6.64	0.41
GENERAL INDUSTRIAL MACHINERY	7.01	1.31	0.01	5.04	0.63
MACHINE TOOLS	5.38	1.88	0.03	2.63	0.84
COMPUTER, OFFICE MACHINERY	7.33	0.73	0.01	6.08	0.51
VENDING MACHINES	7.13	1.56	0.01	5.08	0.47
INDUSTRIAL ELECTRICALS	6.99	1.23	0.02	5.14	0.50
HOUSEHOLD ELECTRICALS	5.03	4.73	0.00	0.94	0.36
LIGHTING AND WIRING	6.10	2.55	0.02	3.14	0.39
RADIO, TV AND COMM EQUIPMENT	4.95	2.18	0.04	2.00	0.72
COMPONENTS	4.91	2.00	0.04	2.03	0.84
MISC.	5.81	3.20	0.02	2.22	0.38
MOTOR VEHICLES	5.38	3.32	0.01	3.20	-0.14
AIRCRAFT	6.95	1.59	0.02	4.06	0.49
OTHER TRANSPORT MACHINERY	6.95	1.59	0.02	4.06	0.49
SCIENTIFIC AND CONTROL EQUIPMENT	5.50	1.99	0.02	3.06	0.50

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS
UNITED STATES
CASE 11 CONT.

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT EXPENDITURE	CAPITAL INVESTMENT	INVENTORIES
OPTICAL INSTRUMENTS	5.86	3.18	0.02	2.33	0.33
MISC. MANUFACTURES	5.10	4.99	0.01	0.81	0.29
SCRAP, RECYCLING	3.24	6.40	0.02	-3.11	-0.05
ORIGINS AND ACCESSORIES	1.12	0.47	0.08	0.20	0.36
CONSTRUCTION	7.08	0.0	0.03	7.05	0.0
REPAIRS	4.44	3.55	0.03	0.68	0.18
UTILITIES	5.59	4.72	0.01	0.69	0.17
TRANSPORT SERVICES	5.36	3.90	0.02	1.18	0.26
COMMUNICATION	5.67	4.27	0.01	1.26	0.14
RADIO, TELEVISION	5.44	3.90	0.02	1.30	0.23
WHOLESALE, RETAIL	5.92	4.78	0.00	0.99	0.14
PRINTING, PUBLISHING	5.37	4.26	0.02	0.72	0.40
BANKING, INSURANCE	5.76	5.22	0.00	0.46	0.08
REAL ESTATE, RENTALS	5.82	5.13	0.00	0.57	0.11
AUTO REPAIR	5.78	4.98	0.01	0.71	0.08
MEDICAL, PERSONAL SERVICES	5.25	5.17	0.01	0.06	0.01
HOTELS, PERSONAL SERVICES	5.61	5.28	0.01	0.27	0.06
BUSINESS SERVICES	5.45	3.89	0.02	1.31	0.23
FEDERAL ENTERPRISES	5.55	4.61	0.01	0.78	0.15
STATE ENTERPRISES	5.46	4.57	0.01	0.72	0.16
BUSINESS TRAVEL ENTERTAINMENT	5.97	3.95	0.01	1.70	0.31
AMUSEMENTS	5.44	5.08	0.01	0.40	-0.04
LABOR	5.81	3.92	0.01	1.68	0.29

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS

WEST GERMANY

CASE I

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
FOODSTUFFS	11.10	6.47	-0.05	2.67	4.01
COAL	14.34	2.59	-0.09	2.42	9.44
REFINED PETRO. PROD.	11.02	4.66	-0.31	3.53	3.14
CEMENT, PLASTER	13.19	1.55	-0.09	7.15	4.59
MEAT, MEAT PRODUCTS	5.07	4.88	-0.04	0.24	0.99
DAIRY PRODUCTS	5.75	4.59	-0.02	0.21	0.99
GRAINS	7.43	4.75	-0.03	0.34	2.37
SUGAR	15.95	4.32	-0.04	0.52	11.15
CONFECTIONS	5.11	4.46	-0.03	0.32	0.36
BEVERAGES	5.19	3.97	-0.05	0.70	1.57
TOBACCO	7.53	3.94	-0.03	0.50	3.22
PIS INDR, INSOTS	12.31	1.34	-0.04	5.14	5.92
FOUNDRY PRODUCTS	14.97	1.11	-0.09	6.05	7.90
NON-PETRODJS	22.58	3.23	-0.18	7.94	11.60
FABRICATED SHAPES	10.71	1.72	-0.08	4.99	4.07
PETRO- OR BASIC	8.98	2.66	-0.12	2.07	4.16
PLASTICS	9.86	1.59	-0.12	4.74	3.64
RUBBER	10.22	2.32	-0.11	3.01	5.00
FIBERS, YARN, FABRICS	11.13	4.35	-0.04	0.83	5.99
CLOTHING FURS	7.12	4.27	-0.05	0.15	2.73
SKINS, HIDES	14.15	4.59	-0.06	1.09	8.55
OTHER	6.92	4.34	-0.04	0.14	2.48
FOOD PRODUCTS	10.91	2.54	-0.04	4.59	3.93
PULP PAPER	11.01	3.13	-0.17	3.04	5.01
AGRI., INDUSTRIAL	12.02	0.80	-0.17	7.16	4.24
ELECTRIC	10.76	1.58	-0.05	5.31	3.93
MOTOR VEHICLE	6.74	1.36	-0.04	3.58	1.83
RAIL ROLLING STOCK	13.45	0.54	-0.19	5.98	7.12
PRECISION INSTRUMENTS	8.15	1.38	-0.04	4.54	2.29
MISC. MANUFACTURE	6.56	3.04	-0.03	0.84	2.72
CONSTRUCTION	12.75	0.24	-0.03	11.15	1.38
UTILITIES	8.69	3.08	-0.13	2.55	3.19
TRANSPORT	6.75	2.52	-0.07	2.12	2.17
COMMUNICATION	5.00	3.49	-0.09	1.41	1.19
WHOLESALE, RETAIL	6.75	3.21	-0.06	2.20	1.41
PUBLISHING, PRINTING	5.47	2.60	-0.23	1.95	2.15
BANKING	6.25	3.53	-0.08	1.50	1.31
RENTALS	5.40	3.66	-0.07	0.96	0.86
EDUCATION	0.30	0.34	-1.19	0.03	0.03
HEALTH	3.46	3.62	-0.21	0.01	0.04
OTHER	1.59	1.28	-0.85	0.81	0.45
DOMESTIC	4.30	4.30	0.0	0.0	0.0

APPENDIX D COMPLETE SECTOR OUTPUT RESULTS

WEST GERMANY

CASE 11

	<u>TOTAL</u> <u>OUTPUT</u>	<u>PERSONAL</u> <u>CONSUMPTION</u>	<u>GOVERNMENT</u> <u>EXPENDITURE</u>	<u>CAPITAL</u> <u>INVESTMENT</u>	<u>INVENTORIES</u>
FOODSTUFFS	8.49	6.62	0.12	0.07	1.68
COAL	7.08	2.65	0.22	0.26	3.95
REFINED PETRO. PROD	7.19	4.77	0.73	0.38	1.31
CEMENT, PLASTER	4.48	1.58	0.21	0.76	1.92
MEAT, MEAT PRODUCTS	5.52	4.99	0.10	0.03	0.41
DAIRY PRODUCTS	5.16	4.70	0.05	0.02	0.41
GRAINS	5.96	4.86	0.07	0.04	0.99
SUGAR	9.25	4.42	0.10	0.06	4.67
CONFECTIONS	4.82	4.57	0.07	0.03	0.15
BEVERAGES	4.91	4.06	0.11	0.08	0.66
TOBACCO	5.51	4.03	0.08	0.05	1.35
PIG IRON, INGOTS	4.56	1.37	0.18	0.55	2.49
FOUNDRY PRODUCTS	5.29	1.13	0.21	0.69	3.31
NON-FERROUS	9.45	3.31	0.44	0.85	4.85
FABRICATED SHAPES	4.18	1.76	0.18	0.53	1.70
PETRO- OR BASIC	5.05	2.73	0.28	0.22	1.83
PLASTICS	3.95	1.63	0.29	0.51	1.53
RUBBER	5.05	2.37	0.27	0.32	2.09
FIBERS, YARN, FABRICS	7.18	4.45	0.09	0.05	2.51
CLOTHING FURS	5.55	4.37	0.12	0.02	1.14
SKINS, HIDES	8.55	4.70	0.15	0.12	3.56
OTHER	5.60	4.44	0.10	0.02	1.04
WOOD PRODUCTS	4.79	2.60	0.10	0.49	1.60
PULP PAPER	6.03	3.20	0.40	0.32	2.12
AGRI., INDUSTRIAL	3.76	0.82	0.41	0.76	1.77
ELECTRIC	3.94	1.62	0.11	0.57	1.64
MOTOR VEHICLE	2.63	1.39	0.09	0.38	0.77
RAIL ROLLING STOCK	4.62	0.56	0.45	0.64	2.98
PRECISION INSTRUMENTS	2.96	1.41	0.11	0.48	0.96
MISC. MANUFACTURE	4.41	3.11	0.07	0.09	1.14
CONSTRUCTION	2.98	0.25	0.06	1.19	0.58
UTILITIES	5.35	3.15	0.30	0.27	1.33
TRANSPORT	3.68	2.58	0.17	0.23	0.91
COMMUNICATION	4.45	3.57	0.23	0.15	3.50
WHOLESALE, RETAIL	4.25	3.29	0.15	0.23	0.59
PUBLISHING, PRINTING	4.33	2.66	0.56	0.21	0.90
BANKING	4.50	3.61	0.19	0.16	0.55
RENTALS	4.38	3.74	0.18	0.10	0.36
EDUCATION	3.21	0.34	2.85	0.00	0.01
HEALTH	1.22	3.70	0.50	0.00	0.02
OTHER	3.61	1.31	2.02	0.09	0.19
DOMESTIC	4.40	4.40	0.0	0.0	0.0

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS
WEST GERMANY

CASE III

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
FOODSTUFFS	13.52	9.03	0.16	0.50	3.84
COAL	13.72	3.62	0.28	1.77	9.04
REFINED PETRO. PROD.	13.06	6.51	0.94	2.60	3.01
CEMENT, PLASTER	12.10	2.16	0.27	5.27	4.40
MEAT, MEAT PRODUCTS	8.05	6.81	0.12	0.18	0.94
DAIRY PRODUCTS	7.56	6.41	0.07	0.15	0.94
GRAINS	9.24	6.63	0.09	0.25	2.27
SUGAR	17.23	6.00	0.13	0.38	10.68
CONFECTIONS	6.89	6.23	0.09	0.23	0.34
BEVERAGES	7.71	5.54	0.15	0.52	1.50
TOBACCO	9.05	5.50	0.10	0.37	3.29
PIG IRON, INGOTS	11.56	1.47	0.24	3.79	5.67
FOUNDRY PRODUCTS	13.85	1.54	0.27	4.46	7.57
NON-FERROUS	22.04	4.51	0.57	5.05	11.11
FABRICATED SHAPES	10.22	2.40	0.23	3.68	3.90
PETRO- OR BASIC	9.75	3.72	0.36	1.52	4.19
PLASTICS	9.59	2.22	0.38	3.50	3.49
RUBBER	10.59	3.24	0.34	2.22	4.79
FIBERS, YARN, FABRICS	12.54	6.07	0.12	0.61	5.74
CLOTHING FUR	8.35	5.86	0.15	0.12	2.62
SKINS, HIDES	15.50	6.41	0.20	0.80	8.19
OTHER	8.67	6.06	0.13	0.11	2.39
WOOD PRODUCTS	10.73	3.54	0.13	3.38	3.67
PULP PAPER	11.93	4.37	0.52	2.24	4.80
AGRI., INDUSTRIAL	10.98	1.11	0.52	5.23	4.06
ELECTRIC	10.33	2.20	0.15	3.92	3.76
MOTOR VEHICLE	6.41	1.90	0.11	2.64	1.76
RAIL ROLLING STOCK	12.57	0.76	0.50	4.41	6.82
PRECISION INSTRUMENTS	7.60	1.92	0.14	3.35	2.20
MISC. MANUFACTURE	7.55	4.24	0.09	0.62	2.61
CONSTRUCTION	9.97	0.34	0.08	8.22	1.33
UTILITIES	9.62	4.29	0.39	1.83	3.06
TRANSPORT	7.33	3.51	0.21	1.57	2.08
COMMUNICATION	7.34	4.87	0.29	1.04	1.14
WHOLESALE, RETAIL	7.54	4.49	0.20	1.62	1.35
PUBLISHING, PRINTING	7.35	3.63	0.72	1.44	2.06
BANKING	7.52	4.92	0.24	1.11	1.25
RENTALS	6.86	5.10	0.23	0.71	0.82
EDUCATION	4.19	0.47	3.68	0.02	0.02
HEALTH	5.74	5.05	0.65	0.01	0.04
OTHER	5.42	4.79	2.60	0.59	0.43
DOMESTIC	6.00	6.00	0.0	0.0	0.0

APPENDIX D

COMPLETE SECTOR OUTPUT RESULTS

UNITED KINGDOM

CASE I

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT CONSUMPTION	CAPITAL INVESTMENT	INVENTORIES
AGRICULTURE	13.79	9.75	0.10	0.51	-3.40
FISHING, FORESTRY	41.91	6.03	0.07	3.35	32.46
ORES	49.37	17.10	0.70	27.21	4.36
COAL MINING	-5.37	5.00	0.17	4.80	-16.45
COKE	-3.02	3.39	0.20	7.80	-14.41
II.C.2 REFINED PETRO. PROD.	11.05	5.14	0.18	4.71	1.01
CERAMICS	12.85	2.50	0.10	6.42	1.90
CEMENT	23.67	1.43	0.11	15.69	5.42
OTHER	19.02	1.57	0.11	15.83	1.51
OTHER EDIBLES	14.47	9.75	0.07	0.18	4.46
OILS AND FATS	13.35	9.06	0.17	1.84	2.24
GRAINS	10.67	7.67	0.05	0.39	2.50
CEREALS	10.14	7.77	0.07	0.26	2.04
SUGAR	42.51	19.10	0.09	0.74	22.58
CONFECTIONS	9.00	6.15	0.01	0.05	2.79
BEVERAGES	9.09	4.94	0.01	0.15	4.00
TOBACCO	1.05	5.48	0.00	0.02	-4.45
IV.A IRON, STEEL	12.93	1.96	0.12	10.15	0.71
IV.B NON-FERROUS	27.56	0.23	0.32	21.95	1.11
ALUMINUM	15.15	3.84	0.35	14.60	-3.64
CANS, BOXES	11.23	6.31	0.10	1.95	2.86
OTHER METAL GOODS	12.61	2.49	0.14	7.92	2.05
V.A CHEMICALS	11.30	4.40	0.21	5.04	1.63
SYNTHETIC FIBER FEEDSTOCKS	12.19	3.34	0.14	5.17	2.55
PAINTS	12.95	2.77	0.11	8.85	1.22
PHARMACEUTICALS, TOILETRIES	6.85	3.62	0.31	0.24	2.69
RUBBER	8.59	3.60	0.10	4.71	0.28
NATURAL	4.01	3.93	0.04	0.51	0.34
SYNTHETIC	9.23	5.49	0.05	1.05	2.64
SPINNING, WEAVING	8.25	6.48	0.10	1.50	0.09
KNITTED	9.17	6.04	0.01	0.03	3.09
FINISHING	6.86	5.24	0.06	1.95	-0.39
OTHER	9.92	5.02	0.07	1.99	2.84
CLOTHING FURS	8.14	6.08	0.05	0.12	1.89
VI.D LEATHER GOODS	8.74	5.49	0.23	0.02	2.61
FOOTWEAR	9.61	5.98	0.01	0.01	3.60
FURNITURE	9.96	4.79	0.13	2.67	2.37
LUMBER	34.57	4.07	0.21	25.32	4.96
VII.C PULP PAPER	20.68	7.67	0.40	7.91	4.71
PAPER PRODUCTS	11.65	4.75	0.16	3.75	2.99
AGRICULTURAL	14.59	0.55	0.01	18.01	-3.98
MACHINE TOOLS	23.36	4.19	0.03	23.09	0.05
INDUSTRIAL MOTORS	6.58	0.56	0.06	12.85	-6.88
TEXTILE MACHINERY	13.03	0.93	0.01	11.08	1.00
PLANT MACHINERY	15.43	0.29	0.05	17.20	-2.11
TOOLS	14.76	3.04	0.17	9.57	1.98
OTHER NON-ELECTRICALS	19.14	0.85	0.05	15.93	1.32
VIII.B ELECTRIC	19.55	1.01	0.08	14.81	3.64
OFFICE	29.19	0.49	0.04	35.26	-6.61
WIRES, CABLES	17.21	1.18	0.15	13.85	2.34
RADIO, T-COM	17.87	1.11	0.40	11.59	4.77
OTHER ELECTRICALS	10.96	3.66	0.13	5.06	2.10
MOTOR VEHICLES	11.59	1.91	0.04	7.31	2.33
OTHER VEHICLES	11.35	2.47	0.00	8.83	-0.03
SHIPS	9.46	0.65	0.52	8.45	-0.16
AIRCRAFT	15.80	0.16	1.00	1.99	12.65
VIII.D PRECISION INSTRUMENTS	12.94	2.24	0.35	6.54	3.81
VIII.E MISCELLANEOUS	11.00	1.00	0.11	19.64	0.84
IX CONSTRUCTION	11.00	1.00	0.11	19.64	0.84

APPENDIX D

COMPLETE SECTOR OUTPUT RESULTS

UNITED KINGDOM

CASE 11

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
AGRICULTURE	15.41	5.66	0.33	0.03	9.39
FISHING, FORESTRY	93.54	3.50	0.18	0.18	89.78
ORES	25.19	9.93	1.72	1.48	12.06
COAL MINING	-43.01	2.50	0.42	0.26	-45.60
COKE	-35.97	1.97	0.49	0.42	-39.86
II.C.2 REFINED PETRO. PROD.	5.49	2.99	0.84	0.26	2.91
CERAMICS	7.16	1.49	0.25	0.46	4.97
CEMENT	15.96	0.86	0.27	0.91	14.93
OTHER	6.23	0.91	0.27	0.56	4.14
OTHER EDIBLES	18.18	5.66	0.17	0.01	12.33
OILS AND FATS	12.38	5.26	0.41	0.10	6.31
GRAINS	11.52	4.46	0.13	0.52	5.42
CEREALS	10.33	4.51	0.16	0.01	5.68
SUGAR	73.32	11.09	0.22	0.04	62.46
CONFECTIONARIES	11.32	3.57	0.02	0.00	7.73
BEVERAGES	13.96	2.87	0.02	0.01	11.06
TOBACCO	-9.13	3.13	0.06	0.00	-12.31
IV.A IRON, STEEL	3.94	1.14	0.29	0.55	1.96
IV.B NON-FERROUS	7.54	2.48	0.78	1.20	3.08
ALUMINUM	-6.19	2.23	0.35	0.80	-10.07
CANS, BOXES	11.93	3.66	0.24	0.11	7.92
OTHER METAL GOODS	7.90	1.45	0.34	0.43	5.68
V.A CHEMICALS	7.92	2.61	0.51	0.27	4.52
SYNTHETIC FIBER FEEDSTOCKS	9.37	1.94	0.34	0.34	7.05
PAINTS	5.72	1.61	0.26	0.48	3.38
PHARMACEUTICALS, TOILETRIES	10.29	2.10	0.76	0.01	7.42
RUBBER	3.35	2.09	0.24	0.26	0.76
NATURAL	3.34	2.28	0.09	0.03	0.95
SYNTHETIC	10.59	3.19	0.13	0.06	7.32
SPINNING, WEAVING	4.33	3.76	0.24	0.09	0.24
KNITTED	12.38	3.50	0.02	0.00	8.55
FINISHING	2.22	3.04	0.14	0.11	-1.07
OTHER	11.04	2.92	0.16	0.11	7.86
CLOTHING FURS	8.39	3.53	0.12	0.01	5.23
VI.D LEATHER GOODS	10.51	3.19	0.06	0.03	7.22
FOOTWEAR	13.46	3.47	0.03	0.00	9.96
FURNITURE	9.79	2.78	0.32	0.15	6.54
LUMBER	17.99	2.36	0.52	1.38	13.73
VII.C PULP PAPER	18.87	4.45	0.97	0.43	13.02
PAPER PRODUCTS	11.63	2.76	0.40	0.20	8.27
AGRICULTURAL	-9.60	0.32	0.02	0.98	-11.01
MACHINE TOOLS	1.58	0.11	0.09	1.26	0.13
INDUSTRIAL MOTORS	-17.86	0.32	0.15	0.70	-19.03
TEXTILE MACHINERY	3.95	0.54	0.03	0.60	2.78
PLANT MACHINERY	-4.51	0.17	0.13	0.94	-5.84
TOOLS	8.17	1.76	0.41	0.52	5.48
OTHER NON-ELECTRICALS	5.13	0.49	0.13	0.92	3.64
VIII.B ELECTRIC	11.67	0.59	0.20	0.81	10.07
OFFICE	-15.97	0.29	0.09	1.92	-18.27
WIRES, CABLES	7.44	0.68	0.36	0.75	5.65
RADIO, T-COM	15.45	0.65	0.98	0.63	13.29
OTHER ELECTRICALS	8.53	2.13	0.32	0.28	5.81
MOTOR VEHICLES	8.04	1.11	0.09	0.40	6.44
OTHER VEHICLES	2.02	1.44	0.19	0.48	-0.09
SHIPS	1.66	0.38	1.27	0.46	-0.44
AIRCRAFT	37.63	0.09	2.43	0.11	34.99
VIII.D PRECISION INSTRUMENTS	11.05	1.30	0.84	0.36	10.55
VIII.E MISC. MANUFACTURE	7.35	2.20	0.35	0.34	4.47
IX CONSTRUCTION	4.26	0.58	0.28	1.07	2.33

APPENDIX D COMPLETE SECTOR OUTPUT RESULTS

UNITED KINGDOM

CASE III

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	REVENUES
AGRICULTURE	12.11	4.18	0.28	0.32	3.56
FISHING, FORESTRY	41.94	5.06	0.04	1.95	34.03
ORES	35.19	14.34	0.40	15.88	4.57
COAL MINING	-10.57	2.19	0.10	2.82	-17.66
COKE	-7.60	2.01	0.11	0.55	-15.11
II.C.2 REFINED PETRO. PROD.	8.23	4.31	0.10	2.75	1.26
CERAMICS	9.38	2.15	0.06	4.92	1.88
CEMENT	16.79	1.24	0.06	9.74	5.66
OTHER	12.22	1.32	0.06	9.24	1.58
OTHER LUBRILES	13.00	5.16	0.06	0.11	4.68
OILS AND FATS	11.15	7.00	0.10	1.07	2.39
GRAINS	9.32	1.04	0.03	3.23	2.62
CEREALS	8.95	0.52	0.04	0.15	2.14
SUGAR	40.18	13.02	0.05	0.43	23.67
CONFECTIONS.	8.12	5.10	0.00	0.03	2.93
BEVERAGES	8.42	2.14	0.01	0.08	4.19
TOBACCO	-0.06	4.00	0.00	0.01	-4.67
IV.A IRON, STEEL	4.37	1.05	0.07	5.92	0.74
IV.B NON-FERROUS	17.74	3.59	0.10	12.81	1.17
ALUMINUM	8.13	3.22	0.20	8.52	-3.82
CANS, BOXES	9.49	5.19	0.06	1.14	3.00
OTHER METAL GOODS	8.95	2.09	0.08	4.62	2.15
V.A CHEMICALS	9.54	3.77	0.12	2.94	1.71
SYNTHETIC FIBER FEEDSTOCKS	9.15	2.50	0.08	3.60	2.67
PAINTS	8.83	2.33	0.06	5.17	1.20
PHARMACEUTICALS, TOILETRIES	5.16	3.03	0.17	0.14	2.81
RUBBER	6.11	3.32	0.05	2.75	0.29
NATURAL	3.97	3.20	0.02	0.30	0.36
SYNTHETIC	8.32	4.60	0.03	0.61	2.77
SPINNING, WEAVING	6.51	5.44	0.05	0.92	0.09
KNITTED	3.33	5.00	0.01	0.02	3.24
FINISHING	5.16	4.40	0.03	1.14	-0.40
OTHER	8.39	4.21	0.04	1.15	2.98
CLOTHING FURS	7.18	5.10	0.03	0.07	1.98
VI.D LEATHER GOODS	7.72	4.60	0.01	0.36	2.74
FOOTWEAR	8.80	5.01	0.01	0.01	3.77
FURNITURE	3.13	5.22	0.07	1.56	2.49
LUMBER	23.52	3.82	0.12	14.78	5.20
VII.C PULP PAPER	15.21	6.43	0.22	4.62	4.94
PAPER PRODUCTS	9.40	3.98	0.09	2.19	3.13
AGRICULTURAL	5.31	0.46	0.01	10.51	-4.17
MACHINE TOOLS	13.70	0.16	0.02	13.48	0.05
INDUSTRIAL MOTORS	0.79	0.47	0.03	7.50	-7.21
TEXTILE MACHINERY	9.31	0.73	0.01	6.47	1.05
PLANT MACHINERY	8.10	0.25	0.03	13.04	-2.21
TOOLS	10.31	2.55	0.09	5.59	2.08
OTHER NON-ELECTRICALS	12.00	0.71	0.03	9.88	1.38
VIII.B ELECTRIC	13.36	0.85	0.05	9.64	3.82
OFFICE	14.09	0.41	0.02	20.58	-6.92
WIRES, CABLES	11.29	0.99	0.08	8.09	2.14
RADIO, T-COM	12.92	0.93	0.23	5.76	5.00
OTHER ELECTRICALS	8.30	3.07	0.07	2.06	2.20
MOTOR VEHICLES	8.33	1.61	0.02	4.27	2.44
OTHER VEHICLES	7.24	2.07	0.04	5.15	-0.03
SHIPS	5.50	0.54	0.29	4.93	-0.17
AIRCRAFT	15.12	0.13	0.56	1.16	13.26
VIII.D PRECISION INSTRUMENT	9.59	1.89	0.19	3.82	4.00
VIII.E MISC. MANUFACTURE	8.54	3.17	0.08	3.59	1.69
IX CONSTRUCTION	13.25	0.84	0.06	11.47	0.98

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS

ITALY

CASE I

	<u>TOTAL</u> <u>CHANGE</u>	<u>PERSONAL</u> <u>CONSUMPTION</u>	<u>GOVERNMENT</u> <u>SPENDING</u>	<u>CAPITAL</u> <u>INVESTMENT</u>	<u>INVENTORIES</u>
AGRICULTURE/FORESTRY	7.06	4.55	0.05	0.01	2.45
FISHERIES	4.85	4.70	0.08	0.00	0.06
EXOS RAW MATERIALS	3.38	0.91	0.13	0.29	2.05
NON-PERIOUS	30.79	3.60	0.34	0.45	26.39
LUMP	8.47	11.13	1.03	0.65	-4.42
COKE, COAL PRODUCTS	1.23	2.06	0.19	0.16	-1.15
CRUDE, NATURAL GAS	22.23	15.42	1.31	0.33	5.17
REFINED PRODUCTS	3.12	2.29	0.20	0.05	0.59
CERAMICS	2.43	0.57	0.09	0.33	1.44
CEMENT, PLASTER	0.77	0.19	0.13	0.36	0.10
GLASS, MISC.	4.32	1.65	0.14	0.17	2.37
MEAT, MEAT PRODUCTS	5.96	5.33	0.04	0.00	0.55
DAIRY PRODUCTS	5.77	4.18	0.01	0.00	2.57
PROD. FRUIT, VEG., FISH	3.04	2.75	0.01	0.00	0.28
OILS, FATS	5.09	4.23	0.07	0.01	1.72
GRAINS	10.09	6.52	0.07	0.02	3.48
CEREALS	3.96	3.37	0.02	0.00	0.57
SUGAR	9.41	3.79	0.02	0.00	5.59
CONFECTIONS	4.01	3.10	0.06	0.01	0.84
OTHER EDIBLES	4.48	3.33	0.02	0.00	1.13
BEVERAGES	3.63	3.25	0.04	0.00	0.34
TOBACCO	4.29	3.52	0.00	0.00	0.77
PIG IRON, INGOTS	2.37	1.01	0.16	0.29	0.92
MILL PRODUCTS	1.25	0.89	0.14	0.25	-0.03
FOUNDRY PRODUCTS	2.59	0.90	0.12	0.24	1.43
NON-FERROUS	17.33	2.16	0.21	0.30	14.66
FABRICATED SHAPES	1.69	1.13	0.12	0.22	0.23
PETRO- OR BASIC	3.89	2.16	0.14	0.08	1.50
SYN FIBER FIBERSTOCK	2.76	1.61	0.07	0.06	1.02
HOUSEHOLD	4.15	3.24	0.32	0.00	0.59
PLASTICS	2.10	1.68	0.10	0.14	0.19
RUBBER	3.68	1.98	0.17	0.09	1.45
FIBERS, YARN	2.48	2.15	0.02	0.01	0.30
WOVEN	2.15	2.35	0.02	0.01	-0.23
KNITTED	2.04	1.78	0.00	0.00	0.27
CLOTHING FURS	3.57	3.08	0.03	0.00	0.45
SKINS, HIDES	2.60	2.30	0.03	0.01	0.26
FOOTWEAR	2.00	1.98	0.01	0.00	0.02
OTHER	2.40	2.11	0.04	0.03	0.23
WOOD PRODUCTS	3.87	1.80	0.24	0.28	1.55
FURNITURE	3.18	2.34	0.00	0.10	0.74
PULP PAPER	6.25	3.69	0.58	0.06	1.93
OTHER	3.49	2.32	0.45	0.06	0.67
AGRI., INDUSTRIAL	1.41	0.54	0.14	0.29	0.44
COMPUTER, OFFICE	1.07	0.19	0.01	0.31	0.56
OTHER	2.00	1.63	0.09	0.24	0.03
MOTOR VEHICLE	0.74	1.62	0.12	0.13	-1.14
CYCLES	1.99	1.95	0.19	0.09	-0.24
RAIL ROLLING STOCK	4.55	1.12	0.07	0.22	3.13
SHIPS	-29.37	0.33	0.43	0.40	-30.52
AIRCRAFT	2.67	0.81	1.69	0.13	0.04
PRECISION INSTRUMENTS	1.76	1.44	0.19	0.28	-0.15
MISC. MANUFACTURE	2.96	2.27	0.05	0.01	0.62
SCRAP/RECYCLE	8.92	3.59	0.51	0.50	4.23
CONSTRUCTION	0.61	0.14	0.00	0.38	0.02
GAS	3.19	2.58	0.11	0.07	0.44
ELECTRIC POWER	3.43	2.48	0.22	0.08	0.65

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS
ITALY

CASE I CONT.

	<u>TOTAL</u> <u>CONSUMPTION</u>	<u>PERSONAL</u> <u>CONSUMPTION</u>	<u>GOVERNMENT</u> <u>SPENDING</u>	<u>CAPITAL</u> <u>INVESTMENT</u>	<u>INVESTMENTS</u>
WATER, SEWAGE	4.56	3.46	0.11	0.03	0.96
RAIL	3.17	2.61	0.18	0.06	0.29
TRUCK	2.74	2.34	0.03	0.08	0.24
SEA	0.45	0.39	0.02	0.01	0.03
INLAND WATER	2.49	1.96	0.28	0.12	0.12
AIR	1.25	1.01	0.12	0.02	0.10
AUX.	3.29	2.88	0.15	0.05	0.21
COMMUNICATION	3.27	2.71	0.35	0.04	0.18
WHOLESALE, RETAIL	3.22	3.09	0.04	0.03	0.07
PUBLISHING, PRINTING	3.70	2.41	0.46	0.03	0.92
BANKING	3.45	2.39	0.71	0.07	0.28
INSURANCE	3.06	2.56	0.15	0.04	0.25
RENTALS	3.30	3.10	0.15	0.01	0.04
REPAIRS	2.69	2.28	0.14	0.11	0.16
EDUCATION	4.51	0.23	4.26	0.00	0.00
RESEARCH	4.23	0.80	3.42	0.01	0.00
HEALTH	3.67	2.49	1.15	0.00	0.03
CATERING	3.33	3.18	0.08	0.01	0.07
OTHER	4.12	1.06	3.02	0.01	0.04
DOMESTIC	3.30	3.30	0.0	0.0	0.0

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS

ITALY

CASE II

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	DISINVESTMENT
AGRICULTURE/FORESTRY	14.14	12.27	0.07	0.32	1.48
FISHERIES	12.87	12.69	0.12	0.03	0.04
EXOS. PAL. MATERIALS	12.36	2.44	0.18	0.50	1.24
NON-FERROUS	39.33	9.71	0.47	13.10	15.96
LUMI	47.89	30.14	1.44	18.97	-2.66
COKE, COAL PRODUCTS	9.54	5.50	0.26	4.58	-0.70
CRUDE, NATURAL GAS	56.66	41.59	1.82	9.53	3.13
REFINED PRODUCTS	5.13	6.16	0.29	1.38	0.36
CERAMICS	12.15	1.53	0.13	9.62	0.87
CEMENT, PLASTER	11.05	0.52	0.18	10.30	0.06
GLASS, MISC.	10.99	4.46	0.19	4.91	1.43
HEAT, HEAT PRODUCTS	14.94	14.50	0.05	0.06	0.23
DAIRY PRODUCTS	12.68	11.28	0.02	0.03	1.56
PROC. FRUIT, VEG., FISH	7.55	7.43	0.02	0.03	0.17
OILS, FATS	12.89	11.58	0.09	0.18	1.04
GRAINS	20.24	17.57	0.10	0.46	2.11
CEREALS	9.50	9.09	0.02	0.04	0.35
SUGAR	13.67	10.22	0.03	0.04	3.39
CONFECTIONS	9.19	8.36	0.08	0.22	0.51
OTHER EDIBLES	9.77	8.98	0.03	0.08	0.68
BEVERAGES	9.13	8.76	0.06	0.10	0.20
TOBACCO	9.95	9.48	0.00	0.00	0.47
PIG IRON, INGOTS	11.80	2.72	0.22	8.30	0.56
MILL PRODUCTS	9.92	2.39	0.20	7.35	-0.02
FOUNDRY PRODUCTS	10.53	2.42	0.17	7.08	0.86
NON-FERROUS	23.78	5.82	0.29	8.80	8.86
FABRICATED SHAPES	9.58	3.05	0.16	6.34	0.14
PETRO- OR BASIC	9.37	5.84	0.20	2.42	0.91
SYN FIBER FEEDSTOCK	5.90	4.35	0.09	1.74	0.62
HOUSEHOLD	9.51	8.73	0.45	0.09	0.36
PLASTICS	8.77	4.52	0.13	3.99	0.12
RUBBER	9.77	5.34	0.23	2.32	0.88
FIBERS, YARN	6.21	5.79	0.03	0.20	0.18
WOVEN	6.38	6.33	0.03	0.15	-0.14
KNITTED	4.96	4.80	0.00	0.00	0.16
CLOTHING FURS	8.69	8.31	0.05	0.06	0.27
SKINS, HIDES	6.75	6.20	0.04	0.35	0.15
FOOTWEAR	5.35	5.33	0.01	0.00	0.01
OTHER	6.71	5.68	0.05	0.84	0.14
WOOD PRODUCTS	14.18	4.84	0.34	8.06	0.94
FURNITURE	9.71	6.32	0.00	2.94	0.44
PULP PAPER	13.71	9.94	0.80	1.80	1.16
OTHER	8.89	6.24	0.62	1.62	0.41
AGRI., INDUSTRIAL	10.29	1.46	0.20	8.36	0.26
COMPUTER, OFFICE	9.78	0.52	0.01	8.91	0.34
OTHER	11.50	4.40	0.13	6.95	0.02
MOTOR VEHICLE	7.65	4.38	0.17	3.78	-0.69
CYCLES	7.88	5.26	0.27	2.49	-0.15
RAIL-ROLLING STOCKS	11.47	3.02	0.10	6.45	1.89
SHIPS	-5.50	0.88	0.60	11.45	-18.46
AIRCRAFT	8.35	2.17	2.35	3.80	0.03
PRECISION INSTRUMENTS	12.22	3.88	0.26	8.17	-0.09
MISC. MANUFACTURE	6.93	6.13	0.07	0.36	0.37
SCRAP/RECYCLE	29.89	9.68	0.71	16.94	2.56
CONSTRUCTION	11.40	0.37	0.11	10.91	0.01
GAS	2.29	6.94	0.16	1.93	0.26
ELECTRIC POWER	9.71	5.70	0.31	2.31	0.39

COMPLETE SECTOR OUTPUT RESULTS

ITALY

CASE II CONT.

	<u>TOTAL</u> <u>CHANGE</u>	<u>PERSONAL</u> <u>CONSUMPTION</u>	<u>GOVERNMENT</u> <u>EXPENDITURE</u>	<u>CAPITAL</u> <u>INVESTMENT</u>	<u>INVENTORIES</u>
RAIL ROLLING STOCK	11.47	3.02	0.10	6.45	1.89
SHIPS	-5.50	0.88	0.60	11.48	-18.46
AIRCRAFT	8.35	2.17	2.35	3.80	0.03
PRECISION INSTRUMENTS	12.22	3.88	0.26	8.17	-9.09
MISC. MANUFACTURE	5.93	6.13	0.07	0.36	0.37
SCRAP/RECYCLE	29.89	9.68	0.71	16.94	2.56
CONSTRUCTION	11.40	0.37	0.11	10.91	0.01
GAS	9.29	6.94	0.15	1.93	0.26
ELECTRIC POWER	9.71	6.70	0.31	2.31	0.39
WATER, SEWAGE	10.34	9.34	0.15	0.77	0.58
RAIL	9.07	7.04	0.25	1.61	0.17
TRUCK	8.79	6.32	0.11	2.21	0.15
SEA	1.28	1.04	0.03	0.19	0.02
INLAND WATER	9.29	5.30	0.19	3.53	0.07
AIR	3.54	2.71	0.16	0.60	0.06
AUX.	9.42	7.77	0.21	1.31	0.13
COMMUNICATION	9.05	7.30	0.48	1.16	0.11
WHOLESALE, RETAIL	9.17	8.32	0.06	0.75	0.04
PUBLISHING, PRINTING	8.41	6.50	0.62	0.00	0.49
BANKING	9.59	6.43	0.99	2.00	0.17
INSURANCE	8.42	6.91	0.21	1.14	0.15
RENTALS	8.95	8.35	0.21	0.37	0.02
REPAIRS	9.71	6.14	0.20	3.27	0.10
EDUCATION	6.57	0.61	5.96	0.00	0.00
RESEARCH	7.07	2.15	4.76	0.16	0.00
HEALTH	8.34	6.71	1.61	0.00	0.02
CATERING	9.04	8.56	0.11	0.33	0.04
OTHER	7.28	2.85	4.20	0.20	0.02
DOMESTIC	8.90	8.90	0.0	0.0	0.0

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS
ITALY

CASE III

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT CONSUMPTION	CAPITAL INVESTMENT	INVENTORIES
AGRICULTURE/FORESTRY	9.81	7.17	0.04	0.29	2.32
FISHERIES	7.55	7.41	0.07	0.03	0.06
EXOG RAW MATERIALS	11.10	1.43	0.10	7.69	1.94
NON-FERROUS	42.81	5.67	0.20	11.93	24.92
LUMP	31.48	17.61	0.85	17.17	-4.15
COKE, COAL PRODUCTS	5.43	3.21	0.15	4.15	-1.09
CRUDE, NATURAL GAS	30.08	24.30	1.08	8.62	4.89
REFINED PRODUCTS	5.57	3.60	0.17	1.25	0.55
CERAMICS	11.04	0.89	0.00	8.71	1.36
CEMENT, PLASTER	9.82	0.30	0.11	9.32	0.09
GLASS, MISC.	9.40	2.61	0.11	4.45	2.23
MEAT, MEAT PRODUCTS	9.37	8.47	0.03	0.05	0.52
DAIRY PRODUCTS	9.06	6.59	0.01	3.02	2.43
PROC. FRUIT, VEG., FISH	4.64	4.34	0.01	0.03	0.26
OILS, FATS	8.61	6.77	0.05	3.15	1.63
GRAINS	14.33	10.27	0.06	3.41	3.29
CEREALS	5.90	5.31	0.01	0.03	0.54
SUGAR	11.31	5.97	0.02	3.03	5.28
CONFECTIONS	5.93	4.89	0.05	0.20	0.80
OTHER EDIBLES	6.40	5.25	0.02	3.07	1.07
BEVERAGES	5.56	5.12	0.03	0.04	0.32
TOBACCO	5.27	5.54	0.02	0.00	0.73
PIG IRON, INGOTS	10.10	1.59	0.13	7.51	0.87
MILL PRODUCTS	9.14	1.40	0.12	6.65	-0.03
POUNDRY PRODUCTS	9.27	1.42	0.10	6.41	1.35
NON-FERROUS	25.38	3.40	0.17	7.96	13.84
FABRICATED SHAPES	7.33	1.78	0.10	5.74	0.21
PETRO- OR BASIC	7.14	3.41	0.12	2.13	1.42
SYN FIBER FEEDSTOCK	5.13	2.54	0.05	1.57	0.96
HOUSEHOLD	5.99	5.10	0.27	0.07	0.56
PLASTICS	6.52	2.64	0.00	3.61	0.19
RUDDER	5.73	3.12	0.14	2.10	1.37
FIBERS, YARN	3.87	3.38	0.02	0.18	0.28
WOVEN	3.64	3.70	0.02	0.14	-3.21
KNITTED	3.05	2.80	0.00	0.00	0.25
CLOTHING FIBS	5.36	4.86	0.03	0.05	0.43
SKINS, HIDES	4.21	3.62	0.02	0.32	0.24
FOOTWEAR	3.14	3.11	0.00	0.00	0.02
OTHER	4.33	3.32	0.03	3.76	0.22
FOOD PRODUCTS	11.19	2.83	0.20	7.29	1.47
FURNITURE	7.05	3.69	0.00	2.66	0.69
PULP PAPER	9.74	5.81	0.46	1.63	1.82
OTHER	6.12	3.65	0.37	1.47	0.64
AGRI., INDUSTRIAL	8.95	0.85	0.12	7.57	0.41
COMPUTER, OFFICE	8.90	0.30	0.01	8.07	0.53
OTHER	8.97	2.57	0.08	6.29	0.03
MOTOR VEHICLE	5.01	2.56	0.10	3.42	-1.07
CYCLES	5.26	3.07	0.16	2.25	-0.23
RAIL ROLLING STOCK	10.62	1.77	0.06	5.84	2.96
SHIPS	-17.56	0.51	0.36	10.39	-28.82
AIRCRAFT	6.14	1.27	1.30	3.44	0.04
PRECISION INSTRUMENTS	0.68	2.27	0.15	7.40	-0.14
MISC MANUFACTURE	4.53	3.58	0.04	0.32	0.59
SCRAP/RECYCLE	25.41	5.65	0.42	15.34	4.00
CONSTRUCTION	10.17	0.21	0.07	9.88	0.01
GAS	6.30	4.06	0.09	1.74	0.41
ELECTRIC POWER	6.80	3.91	0.18	2.09	0.61

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS

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CASE III CONT.

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT EXPENDITURE	CAPITAL INVESTMENT	INVENTORIES
RAIL ROLLING STOCK	10.62	1.77	0.06	5.84	2.96
SHIPS	-17.56	0.51	0.36	10.39	-28.82
AIRCRAFT	6.14	1.27	1.39	3.44	0.04
PRECISION INSTRUMENTS	9.66	2.27	0.15	7.40	-0.14
MISC. MANUFACTURE	4.53	3.58	0.04	0.32	0.59
SCRAP/RECYCLE	25.41	5.65	0.42	15.34	4.00
CONSTRUCTION	10.17	0.21	0.07	9.88	0.01
GAS	5.30	4.06	0.09	1.74	0.41
ELECTRIC POWER	6.80	3.91	0.16	2.09	0.61
WATER, SEWAGE	7.15	5.46	0.09	0.70	0.91
RAIL	5.99	4.12	0.15	1.45	0.27
TRUCK	5.99	3.69	0.07	2.00	0.23
SEA	0.83	0.61	0.02	0.17	0.03
INLAND WATER	6.63	3.09	0.23	3.19	0.11
AIR	2.32	1.58	0.10	0.54	0.10
AUX.	6.05	4.54	0.13	1.18	0.20
COMMUNICATION	5.77	4.26	0.20	1.05	0.17
WHOLESALE, RETAIL	5.54	4.86	0.03	0.68	0.06
PUBLISHING, PRINTING	5.66	3.60	0.37	0.72	0.77
BANKING	6.42	3.76	0.59	1.61	0.26
INSURANCE	5.43	4.04	0.13	1.04	0.23
RENTALS	5.37	4.83	0.12	0.33	0.04
REPAIRS	5.92	3.59	0.12	2.96	0.15
EDUCATION	3.90	0.36	3.54	0.00	0.00
RESEARCH	4.23	1.25	2.83	0.14	0.00
HEALTH	4.91	3.92	0.95	0.00	0.03
CATERING	5.43	5.00	0.06	0.30	0.06
OTHER	4.38	1.67	2.49	0.19	0.04
DOMESTIC	5.20	5.20	0.0	0.0	0.0

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS
FRANCE

CASE I

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
FOODSTUFFS	15.24	13.17	0.91	0.36	0.80
FISHERIES	19.91	18.96	0.72	0.06	0.17
EXOS RAW MATERIALS	18.15	3.49	3.85	8.04	2.37
FERROUS	15.08	3.43	3.82	5.98	2.84
NON-FERROUS	50.16	13.40	15.65	14.95	6.77
LUMP	32.35	13.89	10.46	5.12	3.30
COKE, COAL PRODUCTS	23.95	6.08	6.49	7.68	3.70
REFINED PRODUCTS	18.06	7.97	6.52	2.41	1.16
CERAMICS	17.79	4.22	3.95	8.16	1.46
CEMENT, PLASTER	15.75	1.59	3.62	9.06	1.47
GLASS, MISC.	15.55	7.02	3.41	3.41	1.70
MEAT, MEAT PRODUCTS	15.03	13.52	0.67	0.06	0.79
DAIRY PRODUCTS	12.25	11.56	0.34	0.05	0.33
PROD. FRUIT, VEG., FISH	17.50	15.69	0.60	0.04	1.12
OILS, FATS	23.67	20.72	1.99	0.64	0.33
GRAINS	15.22	12.82	1.04	0.45	0.92
CEREALS	13.33	12.92	0.36	0.04	0.01
SUGAR	13.01	11.53	0.46	0.09	0.93
CONFECTIONS	17.51	16.27	0.25	0.04	0.95
OTHER EDIBLES	14.01	13.15	0.27	0.04	1.35
BEVERAGES	12.80	11.30	0.96	0.15	0.38
TOBACCO	14.34	13.68	0.0	0.0	0.36
PIG IRON, INGOTS	15.68	3.46	3.86	6.03	2.34
FOUNDRY PRODUCTS	18.72	5.30	4.78	6.63	2.01
NON-FERROUS	23.33	5.31	8.14	7.31	3.08
FABRICATED SHAPES	18.08	4.43	4.20	7.62	1.82
PETRO- OR BASIC	27.50	13.04	8.48	3.32	2.66
SYN FIBER FEEDSTOCK	18.89	10.10	5.28	2.94	0.57
INDUSTRIAL	18.75	7.78	3.99	3.64	3.34
HOUSEHOLD	15.38	11.03	3.11	0.52	0.73
PLASTICS	19.04	7.61	5.83	4.05	1.55
RUBBER	15.73	6.97	5.77	3.19	0.79
FIBERS, YARN, FABRICS	10.29	9.93	1.25	0.73	-1.63
WOVEN	12.76	10.44	1.84	1.11	-0.63
KNITTED	11.90	12.60	0.21	0.12	-1.03
CLOTHING FURS	13.18	13.15	0.48	0.09	-0.54
SKINS, HIDES	13.06	9.85	0.88	0.18	2.16
FOOTWEAR	12.73	12.62	0.22	0.04	-0.14
OTHER	14.06	10.93	1.68	0.31	1.13
WOOD PRODUCTS	21.57	5.01	5.11	9.03	3.41
FURNITURE	19.28	13.02	4.63	0.49	1.14
PULP PAPER	32.77	10.69	17.64	2.23	2.21
OTHER	23.74	9.00	10.86	2.15	1.73
AGRI., INDUSTRIAL	16.45	1.71	3.35	9.74	1.65
COMPUTER, OFFICE	22.40	0.77	9.79	11.80	0.04
OTHER	22.83	5.88	10.16	4.74	2.05
MOTOR VEHICLE	15.14	7.43	3.12	3.87	0.72
CYCLES	12.58	9.85	2.11	0.57	0.05

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS

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CASE I CONT.

	<u>TOTAL</u> <u>CHANGE</u>	<u>PERSONAL</u> <u>CONSUMPTION</u>	<u>GOVERNMENT</u> <u>SPENDING</u>	<u>CAPITAL</u> <u>INVESTMENT</u>	<u>INVENTORIES</u>
RAIL ROLLING STOCK	14.14	1.80	1.79	6.81	3.74
SHIPS	2.56	1.45	0.71	5.23	-4.83
AIRCRAFT	43.28	2.30	38.37	1.04	1.57
PRECISION INSTRUMENTS	33.15	7.06	14.62	6.50	4.97
MISC. MANUFACTURE	21.42	9.83	8.54	3.57	2.48
SCRAP/ALUMINUM	14.45	4.02	5.07	4.01	1.35
CONSTRUCTION	15.25	1.56	3.63	9.53	0.63
GAS	17.64	10.94	4.34	1.55	0.80
ELECTRIC POWER	19.20	9.52	7.20	2.13	0.75
WATER, SEWAGE	18.13	11.56	5.37	0.92	0.28
RAIL	16.82	8.52	5.34	2.37	0.60
TRUCK	15.32	9.46	3.88	2.57	0.42
SEA	3.23	0.50	2.65	0.08	0.01
INLAND WATER	18.26	10.92	3.03	3.58	0.73
AIR	14.16	4.59	8.14	1.16	0.28
AUX.	18.71	7.67	7.17	3.12	0.76
COMMUNICATION	28.76	8.28	18.14	1.92	0.42
WHOLESALE, RETAIL	14.63	11.73	1.49	1.24	0.17
PUBLISHING, PRINTING	36.19	8.60	25.59	1.25	0.74
BANKING	31.42	7.83	20.97	2.20	0.42
INSURANCE	17.98	11.00	5.13	1.45	0.32
RENTALS	16.15	11.92	3.29	0.76	0.19
REPAIRS	15.99	11.10	2.80	1.80	0.29
EDUCATION	94.01	0.92	93.09	0.0	0.0
RESEARCH	100.00	0.0	100.00	0.0	0.0
HEALTH	21.60	12.91	9.53	0.03	0.03
CATERING	15.32	12.53	2.32	0.38	0.09
OTHER	65.12	3.53	60.94	1.40	0.26
DOMESTIC	11.71	11.71	0.0	0.0	0.0
LABOR	26.52	6.75	15.46	3.65	0.66

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS

FRANCE

CASE II

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	REVENUES
FOODSTUFFS	7.66	6.63	0.02	0.33	0.70
FISHERIES	9.77	9.55	0.02	0.05	0.15
EXOS RAW MATERIALS	10.90	1.96	0.10	6.77	2.07
FERROUS	9.35	1.73	0.10	5.04	2.48
NON-FERROUS	25.54	6.75	0.39	12.59	5.91
LUMP	14.25	6.79	0.27	4.31	2.99
COKE, COAL PRODUCTS	12.93	3.06	0.17	6.47	3.23
REFINED PRODUCTS	7.23	4.01	0.17	2.03	1.02
CERAMICS	10.37	2.13	0.10	6.07	1.27
CEMENT, PLASTER	9.31	0.80	0.09	7.63	1.29
GLASS, MISC.	7.98	3.54	0.09	2.98	1.48
MEAT, MEAT PRODUCTS	7.57	6.81	0.02	0.05	0.69
DAIRY PRODUCTS	5.14	5.83	0.01	0.04	0.26
PROC. FRUIT, VEG., FISH	8.93	7.90	0.02	0.04	0.98
OILS, FATS	11.31	10.44	0.05	0.54	0.29
GRAINS	7.66	6.46	0.03	0.38	0.81
CEREALS	5.56	6.51	0.01	0.04	0.01
SUGAR	5.71	5.81	0.01	0.00	0.81
CONFECTIONS	9.07	8.20	0.01	0.03	0.83
OTHER EDIBLES	7.34	6.62	0.01	0.03	1.18
BEVERAGES	6.18	5.69	0.02	0.13	0.34
TOBACCO	7.20	6.89	0.0	0.0	0.31
PIG IRON, INGOTS	8.56	1.74	0.10	5.04	2.04
FOUNDRY PRODUCTS	10.13	2.67	0.12	5.59	1.75
NON-FERROUS	11.73	2.67	0.21	6.15	2.60
FABRICATED SHAPES	10.35	2.23	0.11	6.42	1.59
PETRO- OR BASIC	11.91	6.57	0.22	2.79	2.32
SYN FIBER FEEDSTOCK	8.20	5.09	0.14	2.47	0.50
INDUSTRIAL	10.01	3.92	0.10	3.07	2.92
HOUSEHOLD	5.70	5.55	0.08	0.43	0.63
PLASTICS	8.75	3.04	0.15	3.41	1.36
RUBBER	7.04	3.51	0.15	2.69	0.69
FIBERS, YARN, FABRICS	4.23	5.00	0.03	0.62	-1.42
WOVEN	5.69	5.26	0.05	0.94	-0.55
KNITTED	5.55	6.35	0.01	0.10	-0.90
CLOTHING FURS	5.24	6.63	0.01	0.07	-0.47
SKINS, HIDES	7.02	4.96	0.02	0.15	1.88
FOOTWEAR	5.27	6.36	0.01	0.03	-0.13
OTHER	6.80	5.51	0.04	0.26	0.99
WOOD PRODUCTS	12.40	2.52	0.13	6.76	2.98
FURNITURE	8.08	6.56	0.12	0.41	1.00
PULP PAPER	9.65	5.38	0.46	1.88	1.93
OTHER	8.14	4.53	0.28	1.81	1.51
AGRI., INDUSTRIAL	10.59	0.86	0.09	8.20	1.44
COMPUTER, OFFICE	10.62	0.39	0.25	9.94	0.64
OTHER	9.01	2.96	0.26	3.99	1.79
MOTOR VEHICLE	7.71	3.74	0.08	3.26	0.63
CYCLES	5.54	4.96	0.05	0.48	0.05

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS
FRANCE

CASE II CONT.

	<u>TOTAL</u> <u>CHANGE</u>	<u>PERSONAL</u> <u>CONSUMPTION</u>	<u>GOVERNMENT</u> <u>PERSONAL</u>	<u>CAPITAL</u> <u>INVESTMENT</u>	<u>INVENTORIES</u>
RAIL ROLLING STOCK	9.96	0.91	0.05	5.74	3.26
SHIPS	6.93	0.73	0.02	4.40	-4.22
AIRCRAFT	4.40	1.16	1.00	0.87	1.37
PRECISION INSTRUMENTS	13.75	3.56	0.38	5.49	4.34
MISC. MANUFACTURE	7.62	4.95	0.22	0.48	2.17
SCRAP/RECYCLE	5.72	2.02	0.13	3.38	1.18
CONSTRUCTION	9.37	0.79	0.69	8.03	0.46
GAS	7.64	5.51	0.11	1.31	0.70
ELECTRIC POWER	7.58	4.94	0.18	1.80	0.66
WATER, SEWAGE	6.99	5.82	0.14	0.76	0.25
RAIL	6.95	4.29	0.14	1.99	0.52
TRUCK	7.40	4.76	0.10	2.16	0.37
SEA	0.39	0.25	0.07	0.06	0.01
INLAND WATER	9.23	5.50	0.08	3.01	0.64
AIR	3.74	2.31	0.21	0.98	0.24
AUX.	7.33	3.86	0.19	2.63	0.66
COMMUNICATION	5.53	4.17	0.47	1.62	0.37
WHOLESALE, RETAIL	7.14	5.91	0.04	1.25	0.14
PUBLISHING, PRINTING	5.70	4.33	0.07	1.26	0.64
BANKING	6.71	3.95	0.55	1.85	0.37
INSURANCE	7.22	5.58	0.13	1.23	0.29
RENTALS	5.39	6.00	0.09	0.64	0.16
REPAIRS	7.43	5.59	0.07	1.51	0.25
EDUCATION	2.88	0.46	2.42	0.00	0.00
RESEARCH	2.50	0.00	2.60	0.00	0.00
HEALTH	6.35	6.05	0.25	0.03	0.03
CATERING	5.77	6.31	0.06	0.32	0.08
OTHER	4.76	1.78	1.58	1.18	0.22
DOMESTIC	5.90	5.90	0.00	0.00	0.00
LABOR	7.45	3.40	0.40	3.68	0.57

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS

FRANCE

CASE III

	TOTAL OUTPUT	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	INVENTORIES
FOODSTUFFS	8.59	7.23	0.04	0.31	1.12
FISHERIES	10.72	10.40	0.03	0.05	0.24
WOG RAW MATERIALS	12.59	2.13	0.16	6.99	3.31
FERROUS	11.20	1.89	0.16	5.20	3.96
NON-FERROUS	30.39	7.35	0.62	12.93	9.43
LUMP	10.87	7.40	0.43	4.45	4.60
COKE, COAL PRODUCTS	15.41	3.33	0.27	6.67	5.15
REFINED PRODUCTS	8.36	4.37	0.27	2.69	1.62
CERAMICS	11.60	2.32	0.16	7.09	2.03
CEMENT, PLASTER	10.90	0.87	0.15	7.87	2.05
GLASS, MISC.	9.32	3.85	0.14	2.97	2.37
HEAT, HEAT PRODUCTS	8.60	7.42	0.03	0.05	1.10
DAIRY PRODUCTS	6.83	6.35	0.01	0.04	0.42
PROD. FRUIT, VEG., FISH	10.23	8.61	0.03	0.04	1.56
OILS, FATS	12.46	11.37	0.08	0.56	0.46
GRAINS	8.75	7.04	0.04	0.39	1.28
CEREALS	7.15	7.09	0.01	0.04	0.01
SUGAR	7.73	6.33	0.02	0.08	1.30
CONFECTIONS	10.30	8.93	0.01	0.04	1.32
OTHER EDIBLES	9.15	7.22	0.01	0.03	1.89
BEVERAGES	5.91	6.20	0.04	0.13	0.54
TOBACCO	9.01	7.51	0.0	0.0	0.50
PIG IRON, INGOTS	10.55	1.90	0.16	5.24	3.26
FOUNDRY PRODUCTS	11.66	2.91	0.20	5.76	2.80
NON-FERROUS	13.88	2.91	0.33	6.35	4.29
FABRICATED SHAPES	11.76	2.43	0.17	6.62	2.54
PETRO- OR BASIC	14.09	7.16	0.35	2.88	3.71
SYN FIBER FEEDSTOCK	9.11	5.54	0.22	2.55	0.80
1) INDUSTRIAL	12.26	4.27	0.16	3.16	4.66
2) HOUSEHOLD	7.54	6.05	0.13	0.45	1.01
3) PLASTICS	10.10	4.18	0.24	3.51	2.17
RUBBER	7.94	3.33	0.24	2.77	1.10
FIBERS, YARN, FABRICS	3.87	5.45	0.05	0.64	-2.27
WOVEN	5.89	5.73	0.08	0.97	-0.84
KNITTED	5.59	6.91	0.01	0.10	-1.43
CLOTHING FIBS	6.56	7.22	0.02	0.08	-0.75
SKINS, HIDES	8.51	5.40	0.04	0.16	3.01
FOOTWEAR	6.77	6.93	0.01	0.03	-0.20
OTHER	7.92	6.00	0.07	0.27	1.58
WOOD PRODUCTS	14.59	2.75	0.21	6.97	4.76
FURNITURE	9.34	7.14	0.19	0.42	1.59
PULP PAPER	11.51	5.87	0.72	1.94	3.08
OTHER	9.67	4.94	0.45	1.86	2.41
AGRI., INDUSTRIAL	11.84	0.94	0.14	8.46	2.30
COMPUTER, OFFICE	11.13	0.42	0.40	10.25	0.06
OTHER	10.62	3.23	0.42	4.12	2.86
MOTOR VEHICLE	8.57	4.08	0.13	3.36	1.01
CYCLES	6.06	5.41	0.09	0.49	0.08

APPENDIX D
COMPLETE SECTOR OUTPUT RESULTS
ERAUCE.

CASE III CONT.

	TOTAL CHANGE	PERSONAL CONSUMPTION	GOVERNMENT SPENDING	CAPITAL INVESTMENT	RETORTORIES
1 RAIL ROLLING STOCK	12.19	0.99	0.07	5.92	5.21
2 SHIPS	-1.37	0.80	0.03	4.54	-6.74
3 AIRCRAFT	5.92	1.26	1.57	0.90	2.19
PRECISION INSTRUMENTS	17.35	3.87	0.60	5.65	6.93
MISC. MANUFACTURE	9.70	5.60	0.35	0.49	3.46
1 SCRAP/RECYCLE	7.73	2.21	0.21	3.48	1.99
CONSTRUCTION	10.32	0.86	0.15	8.28	0.73
GAS	8.55	6.01	0.18	1.35	1.12
ELECTRIC POWER	8.56	5.39	0.30	1.85	1.05
WATER, SEWAGE	7.76	6.34	0.22	0.80	0.50
RAIL	7.79	4.68	0.22	2.66	0.84
TRUCK	8.17	5.19	0.16	2.23	0.59
SEA	0.46	0.27	0.11	0.07	0.02
INLAND WATER	10.24	5.99	0.12	3.11	1.02
AIR	4.24	2.52	0.33	1.01	0.38
AUX.	6.26	4.21	0.29	2.71	1.05
COMMUNICATION	7.54	4.55	0.74	1.67	0.59
WHOLESALE, RETAIL	7.31	6.44	0.06	1.08	0.23
PUBLISHING, PRINTING	7.89	4.72	1.05	1.09	1.03
BANKING	7.56	4.30	0.80	1.91	0.59
INSURANCE	8.00	6.08	0.21	1.26	0.45
RENTALS	7.60	6.54	0.13	0.66	0.26
REPAIRS	8.18	6.09	0.11	1.56	0.41
EDUCATION	4.32	0.50	3.82	0.0	0.0
RESEARCH	4.10	0.0	4.10	0.0	0.0
HEALTH	7.05	6.59	0.39	0.03	0.04
CATERING	7.43	6.88	0.09	0.33	0.12
OTHER	5.31	1.93	2.50	1.22	0.36
DOMESTIC	6.42	6.42	0.0	0.0	0.0
LABOR	8.42	3.70	0.63	3.17	0.91

TAB E

APPENDIX E
CHANGE IN DOMESTIC DEMAND

JAPAN

DEMAND SECTOR	ANNUAL RATES (PERCENT CHANGE)			
	CASE I	CASE II	CASE III	CASE AVERAGE
PRIVATE CONSUMPTION	11.8	7.1	8.0	9.6
GOVERNMENT SPENDING	7.6	8.2	9.0	8.3
FIXED CAPITAL INVESTMENT	20.3	12.9	12.0	15.1
INVENTORIES	220.1	174.0	97.0	164.0
TOTAL DOMESTIC DEMAND	22.0	14.4	13.1	16.7

APPENDIX E
CHANGE IN DOMESTIC DEMAND

UNITED STATES

DEMAND SECTOR	ANNUAL RATES (PERCENT CHANGE)			
	CASE I	CASE II	CASE III	CASE AVERAGE
PRIVATE CONSUMPTION	6.8	5.8	N.A.	6.3
GOVERNMENT SPENDING	1.6	0.1	N.A.	0.8
FIXED CAPITAL INVESTMENT	14.0	10.1	N.A.	12.1
INVENTORIES	178.0	18.2	N.A.	98.1
TOTAL DOMESTIC DEMAND	10.0	5.5	N.A.	7.8

APPENDIX E
CHANGE IN DOMESTIC DEMAND

UNITED KINGDOM

DEMAND SECTOR	ANNUAL RATES (PERCENT CHANGE)			
	CASE I	CASE II	CASE III	CASE AVERAGE
PRIVATE CONSUMPTION	6.2	3.6	5.2	5.0
GOVERNMENT SPENDING	1.6	3.9	0.9	2.1
FIXED CAPITAL INVESTMENT	25.7	1.4	15.0	14.0
INVENTORIES	124.0	343.0	130.0	199.0
TOTAL DOMESTIC DEMAND	10.1	5.6	6.2	7.3

APPENDIX E CHANGE IN DOMESTIC DEMAND

GERMANY

DEMAND SECTOR	ANNUAL RATES (PERCENT CHANGE)			
	CASE I	CASE II	CASE III	CASE AVERAGE
PRIVATE CONSUMPTION	4.3	4.4	6.0	4.9
GOVERNMENT SPENDING	1.3	3.1	4.0	1.9
FIXED CAPITAL INVESTMENT	12.2	1.3	9.0	7.5
INVENTORIES	430.0	180.0	412.0	340.0
TOTAL DOMESTIC DEMAND	8.1	4.0	8.3	6.8

APPENDIX E
CHANGE IN DOMESTIC DEMAND

ITALY

DEMAND SECTOR	ANNUAL RATES (PERCENT CHANGE)			
	CASE I	CASE II	CASE III	CASE AVERAGE
PRIVATE CONSUMPTION	3.3	3.9	5.2	5.8
GOVERNMENT SPENDING	4.6	6.4	3.8	4.9
FIXED CAPITAL INVESTMENT	0.4	11.6	10.5	7.5
INVENTORIES	124.0	75.0	117.0	105.0
TOTAL DOMESTIC DEMAND	3.3	9.5	6.1	6.3

APPENDIX E
CHANGE IN DOMESTIC DEMAND

FRANCE

DEMAND SECTOR	ANNUAL RATES (PERCENT CHANGE)			
	CASE I	CASE II	CASE III	CASE AVERAGE
PRIVATE CONSUMPTION	13.3	6.7	7.3	9.1
GOVERNMENT SPENDING	100.0	2.6	4.1	35.6
FIXED CAPITAL INVESTMENT	11.4	9.6	9.9	10.3
INVENTORIES	53.8	47.0	75.0	58.6
TOTAL DOMESTIC DEMAND	17.8	7.5	7.1	10.8